THE IMPACT OF TRADE LIBERALISATION ON KENYA

BY

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DECLARATION:

In accordance with Rule G4.6.3, I hereby declare that the above-mentioned thesis is my own work, and that it has not previously been submitted for assessment to another University or for another qualification.

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ABSTRACT

This study examined the impact of trade liberalisation on Kenya. It analysed the influence of trade liberalisation on trade creation, trade diversion, exports, imports, revenue effects and welfare effects. The developments in trade liberalisation and free-trade economic arrangements were introduced in Kenya and many developing countries in the early 1980s and strengthened from 1990s onward. The short term effects of the structural-adjustment programs were characterised by poor balance of payment conditions, high levels of unemployment, contraction of the imports from other countries, and government revenue losses, among other social problems.

Notwithstanding the dismal performance of the Kenyan Economy after liberalisation, the Kenyan government continued to liberalise its trade under various frameworks such as the Economic Partnership agreements (EPAs) with the European Union, the World Trade Organization (WTO) and various bilateral free-trade agreements (BFTA) with its largest trading partners. This study used the World Integrated Trade Solutions-Software for Market Analysis and Restrictions on Trade (WITS/SMART) using 2008 as the base year.

This method was used mainly because of its strengths to analyse the tariff effects of a sole market on disaggregate product lines. In addition the WITS/SMART model is able to analyse the impact of trade liberalisation in scenarios of imperfect substitutes. Hence, this study used the WITS/SMART Model to examine the trade liberalisation framework for Kenya under comprehensive implementation of COMESA customs Union, COMESA FTA, WTOFTA and the EPAs.

The comparative valuation of the trade-creation effects reveals that the WTOFTA expected the highest trade-creation effects of US$995.16 million. This was followed by the various bilateral free-trade agreements which had a trade-creation effect of US$333.04 million, then COMESACU which had a trade-creation effect of US$310.50 million followed by the EPAs with a value of US$129.45 million. COMESA FTA was expecting trade-creation effects valued at US$15.51 million. These trade-creation effects are expected to cause unemployment through de-industrialisation.

This study has also noted that WTO FTA and COMESA CU had no evidence of trade diversion. However, BFTA, EPAs and COMESA FTA showed evidence of trade diversion of US$134.88 million, US$89.28 million and US$2.61 million respectively.

This study also examined the possible revenue effect from the free-trade agreements and customs union. It was noted that most losses emanated from the WTOFTA, which was valued at US$817.15 million. This was followed by the COMESACU protocol, which is expected to register a loss amounting to US$327 million. The third free-trade agreement with the highest losses comprised the various BFTAs amounting to US$304 million. The forth probable losses were anticipated from EPAs amounting to US$142 million. The free-trade agreement with the least losses is COMESA FTA with an expected loss of US$7.88 million.

The consumer welfare effect was done to assess if consumers benefitted from trade agreements. This study observed that the WTOFTA expected the highest consumer welfare effect of US$103.98 million. This was followed by the various COMESACU with an expected consumer welfare effect of US$56.27 million. The BFTA were the third with a consumer welfare effect of US$ 41.82 million. This was followed by the EPAs with a consumer welfare value of US$ 17.56 million. The trade protocol with the least-expected consumer-welfare effect was the COMESA FTA valued at US$ 1.60 million. Although welfare gains resulting from the anticipated trade agreements were an indication of potential benefits to Kenyans, they were insignificant.

This study also analysed the export performance from five different trade agreements and their impact on Kenya. The BFTA expected an export value US$4.63 billion, followed by the EPAs with an expected export value of US$2.18 billion. The third largest export values was WTOFTA with an export value of US$12.12 billion, the fourth being COMESAFTA having an export value of US$ 434.28 million and finally COMESACU with an expected export value of US$394.14 million .

The study showed that major exports were composed of minerals, tobacco and agricultural products dominating the export basket. The export destinations were

expected to be the WTO members, which include Uganda, Congo, Egypt, Rwanda, Sudan and Zambia.

Kenya expected an increase in imports mainly from the WTO amounting to 8.95 per cent. This was followed by the BFTA rated with an expected 3.2 per cent growth in imports. The third protocol expecting import growth was the COMESACU of 2.8 per cent import growth and the EPA with 1.16 per cent import growth, and finally, 0.07 per cent import growth from the COMESA FTA. The expected increase in imports is anticipated to create balance of payment problems for Kenya.

The results of the study show that the welfare gains from trade liberalisation were not able to compensate for the revenue losses. The study also showed that Kenya was not able to make optimal use of trade liberalisation to expand its export destinations; as the COMESACU was expected to reduce exports.

In light of these findings, the study recommends that measures aimed at boosting exports like strengthening of the Export Processing Zones, export subsidies, the establishing of supply-side facilities, trade financing plus strengthening of the export-supporting institutions.

It is important to note that the findings of this study provide an opportunity for Kenya, and other developing countries, to implement measures to ensure that they achieve optimal benefits from the various regional trade agreements.

DEDICATION

This thesis is dedicated to my loving wife Penina and my sons Joel and Jayden, who are dear to me and my reason to always work hard for a better future. I also dedicate it to my father, David, and my mother, Beatrice. Their unfailing encouragement and financial support kept me strong and pressing forward towards the ultimate goal. Lastly, to my brothers, Jimmy, Vincent and Brian and my sisters, Mercy, Tabitha and Linet, for their constant encouragement and support during my studies.

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LIST OF ABBREVIATIONS OR ACRONYMS

AANZFTA	ASEAN –Australia –New Zealand Free Trade Agreement
ACP	African Caribbean and Pacific
ADB	Asian Development Bank
ADB	African Development Bank
AEC	African Economic Community
AGOA	African Growth and Opportunity Act
AIFTA	ASEAN-India Free Trade Agreement
ASEAN	Association of South-East Asian Nations
AU	African Union
BFTA	Bilateral Free Trade Agreement
CAP	Common Agricultural Policy
CET	Common External Tariff
CEMAC	Communauté Economique et Monetaire de l'Afrique Centrale
CGE	Computable General Equilibrium
CIF	Cost Insurance and Freight
CTC	Competition and Tariff Commission
CTN	Common Tariff Nomenclature
CTS	Consolidated Tariff Schedule
CEPA	Comprehensive Economic Partnership Agreement
CET	Common External Tariff
CTR	Collected Tariff Revenue
CU	Customs Union
COMESA	Common Market for Eastern and Southern Africa
COMTRADE	Common Format for Transient Data Exchange
DRC	Democratic Republic of Congo
EAC	East Africa Community
EC	European Community
ECDPM	European Centre for Development Policy Management
ECLAC	Economic Commision for Latin America and the Caribbean
ECOWAS	Economic Community of Western African States

EPAs	Economic Partnership Agreements
EPZ	Export Processing Zones
ESA	Eastern and Southern Africa
EU (27)	European Union Group of Twenty-Seven
FDI	Foreign Direct Investment
FOB	Free on Board
FTAs	Free Trade Agreements
GATS	General Agreement on Trade in Services
GATT	General Agreement onTariff and Trade
GDP	Gross Domestic Product
GEM	General Equilibrium Model
GOK	Government of Kenya
GSP	Generalised Scheme of Preferences
GTAP	Global Trade Analysis Project
HOS	Hecksher-Ohlin-Samuelson
HS	Harmonised Commodity Description and Coding System
IBRID	International Bank for Reconstruction and Development
IDB	Integrated Data Base
IDP	Industrial Development Policy
IGAD	Intergovernmental Authority on Development
IGOs	Inter-Governmental Organisation
ILO	International Labour Organisation
IMF	International Monetary Fund
LDC	Least Developed Country
MERCOSUR	Common Market of the South
MFN	Most Favoured Nation
MUB	Manufacturing Under Bond
OECD	Organisation for Economic Co-operation and Development
NA	Not Applicable
NAFTA	North American Free Trade Agreement
NAMA	Non-Agricultural Market Access
NTBs	Non-Trade Barriers

NTP	National Trade Policy
OAU	Organisation for African Unity
PAYE	Pay As You Earn
PEM	Partial Equilibrium Model
PTA	Preferential Trade Agreement
RIA	Regional Integration Agreement
RTA	Regional Trade Agreement
RECs	Regional Economic Communities
ROO	Rules of Origin
ROW	Rest of the World
RTAs	Regional Trade Agreements
SACU	Southern African Customs Union
SADC	Southern Africa Development Community
SADCC	Southern African Development Coordination Conference
SMART	Software for Market Analysis and Restrictions on Trade
SSA	Sub-Sahara Africa
STR	Statutory Tariff Revenue
TRAINs	Trade Analysis Information systems
TRIPS	Trade Related Intellectual Property Rights
UAE	United Arab Emirates
UK	United Kingdom
UMA	Union du Maghreb Arab
UN	United Nations
UNCTAD	United Nations Conference for Trade and Development
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNESCO	United Nations Scientific and Cultural Organisation
UNSD	United Nations Statistics Division
US	United States
USA	United States of America
USAID	United States Aid for International Development

USD	United States Dollar
VAT	Value Added Tax
WB	World Bank
WCO	World Customs Organisation
WITS	World Integrated Trade Solutions
WTO	World Trade Organisation

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1   Introduction

Trade liberalisation is becoming a common phenomenon among most developed and developing countries in their pursuit of trade expansion. This concept can be taken to mean a deliberate move by a government to eliminate all restrictions to free movement of both goods and services (Stromquist & Monkman 2014). These authors maintained that the elimination of trade barriers and non-trade barriers, which include export duties, subsidies, import quotas and embargoes, are critical elements for ensuring free trade.

This chapter will deliberate on the crucial elements of trade liberalisation and its effects on the critical components of economic development and growth. The following sections of this chapter comprise the background to the study, the problem statement, the aims of the study, the research questions, the research hypothesis, the layout of the study, and finally, the summary.

1.2   Background to the study

A number of countries have supported free trade because of the ability to specialise in the production of goods and services in which they would have a comparative advantage, or where the country is able to produce at the lowest comparative costs (Jeffery 2015). This eventually leads to higher economic welfare for the consumers and producers. It also gives a country the privilege to import goods and services at a lower cost than before the preferential treatment. This increases the welfare benefits for the citizens and consumers of the countries participating in free trade (Melnikas 2015).

Odhiambo and Otieno (2005) stated that besides improving the competitiveness of the firms competing abroad, consumers, through trade liberalisation, are afforded lower prices for goods and services. Furthermore, those countries that have trade liberalisation policies have greater advantages

in respect of economies-of-scale because of their specialisation in the production of goods and services in terms of both resources and time.

In recent years, the regional trends in international trade have revealed drastic shifts and major steps in the promotion and strengthening of free trade (Menyah *et al* 2014). Regional trade agreements have been key instruments, used by most first-world countries in the promotion of economic growth, increased global trade and foreign direct investment. Trade liberalisation, through regional integration, has been instrumental in the economic development of countries through an increase in trade volumes, technology transfer, the promotion of political stability and the promotion of social cohesion – especially in the region of Sub-Saharan Africa (Menyah, Nazlioglu & Wolde-Rufael 2014)..

Hartzenberg (2011) underscored that the Southern African Customs Union existed since 1910, and the East African Community was founded in 1919. These were among the early steps and initiatives taken toward trade liberalisation and regionalism. In the 1960s regionalism or regional arrangements came to be popular - especially after the formation of the European Economic Community in 1957 and the European Free Trade area in 1960 (Hartzenberg 2011). The Bretton Woods Conference, which was officially known as the United Nations Monetary and Financial Conference, was an important motivator for many countries in Africa to engage in trade liberalisation and regionalism (Cohn 2015).

At a conference that took place from the 1st to 22nd July in 1944 at Bretton Woods, New Hampshire, delegates from 44 nations conducted a census and formulated new rules for the post World-War II International Monetary System (Irwin 2015). The key successes of this conference were the formation and creation of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD). Furthermore, it also provided an opportunity for most world leaders, policy-makers, economists and Officials,

such as President Franklin D. Roosevelt and the Secretary of State, Cordell Hull, to push forward the Wilsonian ideology that free trade not only promoted international prosperity, but also international peace among other benefits, such as economic growth (Irwin 2015).

After the first two post-colonial meetings in April 1958 and in June 1960, this resolution also affected Africa as it was agreed that regionalism was all Africa needed to address the issues and problems facing the continent (Geda & Kebret 2008). The leadership of the African continent opted for regional integration as a panacea for most economic problems, which came as a result of much division and it being a small-country in terms of its market size, not only in comparison to continental markets, but also in respect of the domestic market.

This regional arrangement encountered numerous challenges, especially in Kenya, where the East African Community (EAC) agreement ended in 1977; but it continues again in the 1990s (Mugomba 1978). This stoppage was caused due to unequal gains from trade among the members (Geda & Kebret 2008). Despite the first experience not being successful, most countries endured and continued to gain from the regional arrangements. This was later manifested by the revival and creation of most regional blocs in the late 1980s and early 1990s; regionalism had once again become a better policy choice for both first-world and third-world countries (Baldwin 2006).

After the Cold War, many powerful economic blocs and regional groups displayed renewed interest, hoping to profit from the regional economic integration (Cohn 2015). This was mostly aimed at promoting foreign direct investment, wider markets for goods and service and economic growth, among other reasons. This led to the formation of eight official regional economic groups (Arab Maghreb Union (UMA),Common Market for Eastern and Southern Africa (COMESA),Community of Sahel-Saharan States (CEN-SAD), East African Community (EAC), Economic Community of Central African States

(ECCAS),Economic Community of West African States (ECOWAS), Intergovernmental Authority on Development (IGAD),Southern African Development Community (SADC)) and six intergovernmental organisations (IGOs), mainly dealing with issues and aspects of regional integration (Lester, Mercurio & Bartels 2015).

The process of trade liberalisation and market-oriented economic transformations in most developing countries started in the early 1980s and gained momentum in intensity during the 1990s (De Sousa, Mayer & Zignago 2012).

Of note is that there are three categories of countries working on their various trade reforms. Among the countries in the forefront are the East Asian Countries that introduced new trade policies. These policies proved quite favourable to the various industrial regimes that originated in the 1960s. This was followed by African countries, which were stimulated by the Bretton Woods institution and the International Monetary Fund. The third group comprised the Latin-American Countries that began with various economic reforms in the 1980s, after the drive set up by the Bretton Woods Institution. This group developed through self-motivation (De Sousa et al. 2012).

Many developing countries opted for trade liberalisation as an alternative after the import substitution policies in the 1950s-1970s became less meaningful (Brülhart (2011). This became a catalyst for various reform agendas, which included the minimised role of the government in the institution, management and setting up of institutional frameworks. The need for the diversification of exports and the creation of arrangements that produced such manufactured goods was very conspicuous (De Sousa et al. 2012).

A wave of trade reforms followed when nations chose to work towards increasing their gains in international trade by entering into regional trade agreements (Khorana, Kimbugwe & Perdikis 2009). In this context the capitalist

countries expected to expand investment in various productive sectors of the economy. This in turn is likely to lead to growth and diversification of exports (Malhotra 2012).

1.2.1 The merits of trade liberalisation

The potential gains of international trade to a nation include the trade-creation effects and the consumer-welfare effects. These are major contributors to a nation's economic growth and development through increased export volumes and cheaper prices of goods and services. These benefits were emphasised by Jacob Viner (1950) in his emphasis on trade liberalisation and the promotion of international trade. His seminal works on the establishment of the customs unions and their potential benefits to the participating nations have been used as key pillars for the development of further related studies on customs unions, such as the research work of Castro, Kraus, & Rocha(2004); Karingi et al. (2005); McIntyre (2005); Sangeeta et al(2009.)

Regional trade agreements, such as the free-trade agreements and the customs-union agreements have created significant gains both for governments and citizens, who are the consumers and producers of the goods and services. Khorana, Kimbugwe and Perdikis (2009) argued that besides consumers having access to a wider variety of goods produced from the other member countries, most producers would also gain from the common external tariffs. These gains could be used to create barriers to superior competitors, which would make room for local industries to make profits and develop their production capacity. The consumers from the regional bloc would have access to duty-free goods from the other countries in the trading bloc (Viner 2014).

Brülhart (2011) maintained that with trade liberalisation and trade openness, the imports coming into regional blocs would become less expensive. This also contributes to reduce the costs of production in an industry because the firm would produce for a larger market in the regional trade arrangement. The processing of foreign costs can thereby be reduced, leading to higher cost-

saving advantages, enhanced quality of the goods produced, cheaper access to foreign inputs and greater variety. Brülhart (2011) is supported by Keesing (1967) in calling for a move whereby free-trade would have positive industrial actions along with robust developmental effects on developing nations.

Keesing (1967) also acknowledged that free-trade and trade openness attract new technologies, products and skills, as well as the production capability that is needed to engender direct exports and to create new jobs.

Keesing's (1967) argued that trade liberalisation improves welfare, increases foreign competition, which leads to weakening of the national monopoly in domestic enterprises. This results in better services to consumers through lower prices and better quality goods. In this way, trade liberalisation would be confirming its ability to increase the welfare of consumers.

Trade liberalisation and trade openness create a trusted paradigm leading to economic growth and development (Ng & Yeasts 2000). The political rhetoric is so often pushing for a popular press to argue for the protection of domestic industries, which however, could pose a real risk to the economy. Empirical studies from Ng and Yeasts (2000) indicated that no economy has grown economically through protectionism. They further profess that any hindrance to trade liberalisation, like protectionism, could push the affected countries to retaliation – thereby leading to considerable losses in the host country.

Trade liberalisation is seen as a solution to rampant inefficiency and the misallocation of resources in developing countries (Topalova & Khandelwal 2011). It is, therefore, expected that a country, which embraces trade liberalisation, would witness faster economic growth, due to a reduction in the distortions in price relativities. Brülhart (2011) stated that trade liberalisation allows those activities that create a competitive advantage to develop.

Amongst the advantages of trade liberalisation and openness are the inevitable restructuring costs, which lead to higher levels of competition in the domestic market (Topalova & Khandelwal 2011). This situation, in turn, brings about higher efficiency gains and lower prices for competitive firms. The less competitive firms are likely to fail, or to be downsized, which eventually could lead to job losses; Thus as prices drop, jobs are lost in the economy. This may serve as an explanation for why nations resist enter into trade-liberalisation agreements.

Duncan and Quang (2003) provided a history of and persuasive arguments on the positive impacts of trade liberalisation in developing countries. They noted that third-world countries generally have high ratios of labour-to-capital, along with labour-to-land. This implies that the type of production is mostly labour intensive unlike the developed countries, which use capital-intensive production techniques. Duncan and Quang (2003) emphasised that with trade liberalisation, there would be increased employment of low-skilled personnel, irrespective of the factor intensity of a country.

This was deduced after careful examination of other economic variables that not all developing countries adopting trade liberalisation would automatically achieve growth; but a fact to bear in mind is that no developing country has experienced any growth via trade barriers that limit imports.

Amongst the countries that implemented trade liberalisation policies, there is Bangladesh. The United States Agency for International Development (USAID) (2005) argued that the effects of liberalisation have varied from one country to another. Bangladesh, like many other countries, implemented a trade and financial liberation plan that was instrumental in increasing the female employment rate and increased the exports of manufactured goods. Rondinelli (2013) also showed that Philippines managed to improve the conditions of unemployment and reduced bankruptcy tendencies among the medium- and small-scale businesses after trade liberalisation. For these reasons this study is

vital in determining whether Kenya has benefitted from the various trade arrangements it has entered into.

1.2.2   The challenges of trade liberalisation

Although trade liberalisation has been applauded for its recommended benefits to a nation, caution should be taken for the accompanying weaknesses that have been realised during its implementation in a country. The much-expected adjustment in costs resulting from trade liberalisation frequently fails to occur in the short run; but thereafter, a wide variety of negative outcomes can follow. These may include reduced employment and output in the local industry, along with losses in industries and specific human capital (Matusz & Tarr 1999). These problems may go further to creating macro-economic instability situations that originate from the balance-of-payment problems – especially when the government reduces revenues; since this greatly works against trade liberalisation (Matusz & Tarr 1999).

A report by Rondinelli (2013) highlighted a case in the Philippines. It blamed the loss of tariff revenues in the Philippines on increased levels of foreign borrowing, deficit-budget problems, inadequate funds for crucial sectors, such as education, health and social services. The problems experienced by these sectors could easily have been addressed if the economy were to be liberalised, thus attracting foreign direct investments to invest in key sectors reducing financial strain of government in respect of limited resources such as taxes.

Baldwin and Robert-Nicoud (2014) also noted that trade-diversion effects in trade liberalisation constitute a factor derived from the customs union, in which those that gain are the producers from the region. This means that in the case of implementing trade liberalisation, the most efficient producers outside the trade bloc are locked out to make room for a less-efficient producer from the regional trade agreement to grow and enjoy the largest trade gains (Bhagwati 1994). However, it should be noted that in such an arrangement, the consumer

becomes the ultimate loser; since the consumer-welfare gains are denied. This is caused by the consumer being denied the opportunity to buy from the most efficient producers at a lower price than from the most efficient producers in the rest of the world. Instead, they buy goods from an inefficient producer from the regional trade agreement, who produces expensive goods (Baldwin and Robert-Nicoud, 2014).

Brenton, Saborowski, Staritz & Uexkull (2009) noted that in recent years, trade reforms have had negative sectorial impacts on employment. They argued that as nations welcome trade liberalisation, it comes with an upward price adjustment, which works against the poor, especially when an efficient low-priced producer is dislodged to make room for an inefficient and high-priced producer in a regional trading bloc.

Studies on welfare implication reveal that trade diversion exists in most regional trade agreements, which may lead to losses (Sangeeta , Kato & Nicholas 2009). This is particularly evident when the consumers or the buyers are forced to buy commodities from inefficient and high-cost producers from the regional trading bloc after the displacement of an efficient and low-cost producer from the rest of the world.

In Viner's seminal works on the formation of customs unions in 1950, predicted potential losses as a result of trade-diversion effects (Viner 1950). He was later supported by the works of Castro et al. (2004); McIntyre (2005) and Karingi et al. (2005).

The recent analysis of the economic performance of countries, like Malawi and Zambia, showed that their performance has not been satisfactory despite their efforts to get their economies liberalised. This results largely from the fact that these countries have had a low capacity to realise economic and trade gains despite liberalising their trade policies (Tussie & Aggio 2005).

The opponents of trade liberalisation policies include Lee (2005), who blamed trade-liberalisation policies for the economic problems in many developing and developed countries. Lee argued that adopting it has led to high and rising levels of unemployment, along with wide margins in wage disparities. Lee (2005) further claimed that trade liberalisation had crippled stable economic sectors, leading to high unemployment levels due to increased foreign competition, besides the closing of production firms and growing wage inequalities. This is of fundamental importance, since the effect on trade in some countries has had devastating effects on the social protection which was then already weak.

By trade liberalisation affecting the employment levels, it can be shown that a key determinant of the social welfare, quality of life and social structure can be damaged and put the citizens at a disadvantage (International Labour Organisation, 2009). McCulloch, Winters and Cierra (2001) were quick to mention that trade liberalisation is not a remedy or panacea for all trade-related problems. But they insisted that as developing and developed countries are adopting trade liberalisation policies, they need to be backed by complementary policies, which can give support to the role of education in economic growth, infrastructure, finance and prudent macro-economic policies.

Research by Makochekanwa (2012) revealed that African countries, such as Lesotho, Swaziland, Tanzania, Uganda and Zimbabwe that derive revenue from taxes and tariffs as a key source of national income have had problems with trade liberalisation. This is due to the fact that when a country enters into a trade liberalisation agreement considerable tariff revenues are lost. A country would therefore, be forced to seek alternative funding to meet the budget deficits.

A country like Kenya generates 10 per cent of its tax revenue from international trade, and especially revenue from the taxation of goods destined to land-locked countries, such as Uganda and Rwanda (World Bank 2015). This

means that trade liberalisation has had adverse effects forcing the states to either reduce tariffs, or totally abolish tax on some products. This has resulted in losses and decreased revenues, which had severe consequences for Kenya in the earlier years (Brenton et al. 2009). Brenton et al. (2009) further maintained that third-world countries with low incomes are faced with serious revenue difficulties. They suggested that the revenue condition would be harmed, if their tax bases and tax sources were to be withdrawn through trade liberalisation.

Most developing countries, especially those in sub-Saharan Africa are faced with poverty-eradication challenges. This means that export growth remains a key factor to help the country to come out of poverty (World Bank 2014). Countries, like Uganda, Rwanda, Malawi and Zambia, may not have benefited much from trade liberalisation – especially those with serious problems and inadequate strategies to tackle supply-side limitations (Mugano 2013). Among the limitations and bottlenecks, poor transport and inadequate infrastructure work against these countries as far as competing internationally and benefiting from trade liberalisation.

The International Monetary fund (IMF) (2009) emphasised that the elimination of trade barriers and the gains from trade in the past had been unfairly distributed. This means, according to the IMF (2013), approximately two thirds of the gains of trade liberalisation were realised by the developed economies. Developing economies, like those of China, India and Brazil have of late gained much from trade liberalisation. However, the low-income earners have lost much of their gains because of their structural rigidities.

For the last twenty-five years, most African countries have dealt with the removal of trade barriers in the hope of gaining increased export growth and performance. All these efforts without due consideration of their export composition have not changed the balance-of-payments conditions, thereby

rendering them vulnerable in the trade-integration arrangement (UNCTAD 2008a).

Despite the efforts by African nations to diversify the exports towards manufactured goods, their exports have suffered greatly in the international market due to superior competition from developed economies within the regional trading group (Bouët, Mevel & Orden 2007). In addition to these problematic situations, many sub-Saharan African states, such as Kenya, suffered from adverse demographic and geographical environments, low rates in local and domestic savings, inadequate institutional honesty and transparency, and frequent political instabilities and conflicts (UNCTAD 2008a). Consequently, despite the developing countries' efforts to establish trade liberalisation, the negative key variables in development make it difficult for most countries to benefit from such trade liberalisation.

This study noted that with all the merits and challenges discussed in this section especially on the various economic sectors highlights the fact that there is no clear and predictable evidence of the effects of trade liberalisation, especially in developing countries. It is also clear that there is need to quantify the benefits from each trade arrangement that is a comparative assessment of their national significance, which is the general aim of this study.

1.2.3 Trade liberalisation and its past experience in Kenya

At Kenya's independence in 1963, the post-colonial government inherited a trading and industrial policy already in place from their colonial rulers or masters. To a large extent, these policies worked towards import substitution initiatives (Mimano 2014). Since the early 20th century, the manufacturing industry has been very slow to compete in the international market. Kenya's growth rate and output was limited mainly to processed agricultural goods. It has suffered from inadequate local capital, and low capacity in skilled management of the various industries (Gertz 2009). This caused government, after independence, to pursue a policy that would attract foreign investors to

produce goods that could be consumed both in the local and in the regional markets. Among the multinational companies and corporations that arrived in Kenya, were Del Monte, United Steel, Schweppes, Firestone, Union Carbide as well as Lonrho who began their production works in Kenya around the same period (Bigsten 2002). During this period, the effective rates of state protection of the industries were very high, allowing most established businesses to enjoy a monopoly of power, or to behave like established monopolistic powers (Gertz 2009).

From 1964 to 1969, the value addition in the manufacturing sector rose by forty-four per cent in real terms, which included leading sectors, like clothing, beverages, food, textile and tobacco (World Bank 2000). In 1970 and 1971 Kenya was hit by a balance of payment crisis between 1970 and 1971 (Dell & Lawrence 2013). This situation was worsened by the oil shock that happened exactly two years after this crisis. The government of the day used these challenges to justify the import-substitution policies. This later led to the government increasing the costs of import licenses and other tariffs increased sharply. While a crisis was looming, the manufacturing industry benefited from the protectionism policy, which contributed to its sectorial annual growth rate of more than 25 per cent between the years 1971 to 1973 (Kimunyi 2014).

This meant that throughout this decade, sectors, like the manufacturing sectors grew steadily; and their production continued to diversify to pharmaceuticals, plastics and vehicles. Collier and Gunning (1999) confirmed that in the late years of the 1970s, Kenya's export materials were boosted by a substantial rise of between four to five times the previous prices. Hence, the price of coffee increased, which motivated the increase in coffee production (Mukim & Farole 2013).

This increase in the production of coffee led to a net rise of 54 per cent in Kenya's trade by 1977 (Kennedy 2013). This boom temporarily relieved the government of the foreign-exchange crisis, which featured again in the 1980s

and reversed the gains made. It is important to note that by this time, the value and emphasis on import substitution had reduced drastically and its effects were much lower. The importing of goods was much lower thereby not leaving space for any substitution. It clearly indicated that there were minimal prospects for any future growth (Kimunyi 2014).

The situation worsened for Kenya, since the few trade links it had for stable trade and growth continued to diminish after the collapse of the EAC in 1977 (Stokke 2013). The EAC, which had become a premier destination for most Kenyan exporters and manufacturers, became a no-go zone. This became evident when Tanzania tightened its border security against imports from Kenya and Uganda. Whereas in Uganda, demand for Kenyan goods decreased significantly due to internal instability, as a result of the military coup by General Idi Amin Dada. Kenya's small export industry was pressured to develop measures to cover the fault lines evident in the economy that was just on the path to recovery following the coffee boom.

This had been masked by the temporary influx of foreign exchange during the coffee boom; and now, they began to reassert themselves (Mukim & Farole 2013). This situation forced Kenya to adopt structural-adjustment loans that were facilitated by the World Bank for the first time in 1980 (Kanji,Kanji & Manji 1991). This was done through the exchange of a more liberalised economy to promote a free-trade or liberal trade regime along with a more outward industrial and trade policy (Mukim & Farole 2013). Kenya only documented trade liberalisation, but practically, none was adopted as many quantitative import restrictions were on the ground as a way of protecting the local infant industries. In 1982, Kenya's promise to the International Monetary Fund to pursue greater liberalisation failed to work as some goods were liberalised while others reintroduced tariffs (Mukim & Farole 2013).

In the 1980s, Kenya started trade liberalisation efforts (Kanji etal.1991). This was evident through the reduction in taxes and tariff rates by eight per cent of

the total price. The reforms were too slow to have any significant effect on Kenya's trade volumes (Were, Ngugi & Makau 2013). In fact, most of the reforms done were meant to silence the donor community as less genuine reforms were implemented (Mukim & Farole 2013). This was clearly demonstrated, since when faced with other economic priorities, they quickly abandoned the liberalisation initiative (Were et al. 2013).

Kenya, during 1982 to 1984, uniformly raised all the tariff rates - not to reverse the gains in the trade liberalisation process but as a measure to counter the dreaded foreign exchange crisis (Langan 2014). However, the international community increased the pressure on Kenya that made it relax its hard stance on trade liberalisation. Kenya greatly reduced and eliminated many trade barriers, including quotas and tariffs. In 1987, the quantitative restrictive practices were limited to 40 per cent of the affected import items (Nesheim, Reidsma, Bezlepkina, Verburg, Abdeladhim, Burszty, Chen, Cissé, Feng, Gicheru & König 2014). The liberalisation process went further, so that by July 1991, Kenya was addressing import licences for health and security reasons only (Were et al. 2013).

The shift made from licence restrictions to tariffs caused an initial rise in various higher tariff bands, but this was reversed or lowered in the early 1990s (Nesheim et al. 2014). This continued so rapidly that by 1997 and 1998 the trade-weighted average had significantly reduced to 12.8 per cent, and all the other tariffs went down to below 50 per cent (Were et al. 2013).

Evidently, there were minimal policy reversals during the period 1980-1990. The only notable one was the tariff rise in 1993. This was basically to recover the shortfall in government revenues, which showed that between the 1980s and the 1990s, many efforts, developments and achievements occurred in respect of trade liberalisation (Gertz 2009).

In close correlation to the decrease in tariffs and quotas, Kenya in the 1980s and the early 1990s went ahead to relax its foreign exchange restrictions. This was a positive step towards trade liberalisation. Among the other subsequent trade liberalisation measures, there was the introduction of the tradable Foreign Exchange Bearer Certificate in 1991, known as Forex Cs. Through these reforms, the foreign-exchange market restrictions eased greatly in 1994 and Kenyans traded easily in foreign currency. This step of liberalisation ensured that imports were no longer restricted to being based on the availability of foreign exchange (Gertz 2009).

The liberalisation efforts went further through export promotion platforms that saw in 1988 the manufacturing-under-bond (MUB) program, which was initiated in 1988 (Glenday & Ndii 2003). In 1997, there was a massive closure of industries due to "Kenya's garment quota from the U.S market and the appreciation of the exchange rate and wages of the mid-1990s"(Glenday & Ndii 2003). Kenya opened the market to attract new exporting firms through waivers on import tariffs, corporate tax holidays and reduced trade-licence bureaucracy (Farole & Winkler 2014).

Kenya has since decreased the role of government, as a method of ensuring trade liberalisation. The economy was largely determined by the forces of demand and supply that were able to decontrol even the prices of the oil market and wheat (Juma 2010). The financial sector was the final contemporaneous policy, which was introduced as a check after the financial crisis of 1993. This led to the government to issue large treasury bills to restrain consumption spending that was important to limit the expansion of the economy (Mimano 2014).

In order to promote trade, signed various trade agreements. These trade agreements included the East African Community Customs Unions (EACCU) protocol in the year 2010, the Common Market for Eastern and Southern Africa Customs Union COMESACU protocol in June 2009, the EPAs in 1975, which

was later modified to the Cotonou Partnership Agreement, (CPA), signed on June 23, 2000 in Cotonou, the capital of Benin, the successor of the Lome IV Convention (Were et al. 2013).

The AGOA treaty was approved in 2000 and got a boost in June 29, 2015, is still operational in Kenya along with the (World Trade Organisation) WTO and the interstate agreements that further liberalised the modern day Kenya. These trade liberalisation agreements are yet to be assessed and quantified, in order to determine exactly which has the largest benefits, and which has the greatest impact on the various trade variables in Kenya.

1.3   Statement of the problem

The trade liberalisation presents challenges for Kenya as a nation that is still emerging from the setbacks encountered in the 1970's. In the late 1970s, Kenya encountered a number of setbacks that ranged from the collapse of the EAC, the drop in commodity prices and the four-fold increase in oil prices, which led to the country implementing price stabilisation and trade-liberalisation initiatives (Mbole-Kariuki, Sonstegard, Orth, Thumbi, Bronsvoort, Kiara, Toye, Conradie, Jennings, Coetzer & Woolhouse 2014).

Trade liberalisation measures were part of the packages sold by the IMF to developing countries, which include Kenya, despite the fact that these countries lacked the capacity to compete. Of significance is that evidence shows that in Africa, trade liberalisation resulted in severe job losses, misery and entrenched poverty (Mugano 2013).

Kenya's situation is worsened by the fact that 9.92 per cent of its tariff lines are zero-rated. This means in case Kenya entered a Free Trade Agreement (FTA), 90.08 per cent of the tariff lines would have to be liberalised. It also implies that the nation would be faced by the negative effect of revenue losses. In addition, this also presents a serious threat to local industry competitiveness.

The effect of Kenya's tariff structure, in comparison is more complex than the common external tariffs (CET), which would be applied in the case of a customs union.

To make matters worse, Kenya, like other African countries, faces the challenge of overlapping membership, which has a possible impact of noodle bowl outcomes in Zimbabwe, as noted by Mugano (2013). An example of countries with overlapping membership is to be found in Kenya, Rwanda, Burundi and Uganda who are all members of both COMESA and EAC.

Kenya is a signatory to a number of trade pacts which include the Economic Partnership Agreements (EPAs), World Trade Organisation Free Trade Agreement (WTOFTA), Common Market for Eastern and Southern Africa Customs Union (COMESACU), Common Market for Eastern and Southern Africa Free Trade Agreement (COMESAFTA), East African Community Customs Union (EACCU), East African Community Free Trade Agreement (EACFTA), African Growth Opportunity Act (AGOA) and many other interstate bilateral trade agreements. This study finds it necessary to establish trade, welfare and revenue effects of these trade agreements to determine which is beneficial and how can other agreements be improved to become profitable.

Kenya continued to open its trade against the backdrop of renewed protectionism efforts by developed countries which saw Britain opting out of the European Union (Michalopoulos & Ng 2013; IMF 2013; Wolfe 2011 and Dadush, Ali & Odell 2011).The above discussion leads to the examination of the following research questions: The aim and objectives that address these research questions are presented below

Has trade liberalisation led Kenya to achieving trade creation?
Has trade liberalisation resulted in welfare gains in Kenya?
What are some of the effects of trade liberalisation on government revenue?
Has trade liberalisation led to growth in imports?

Has trade liberalisation influenced the growth in exports?

Who is Kenya's major trading partner?

1.4 Aim and objectives of the study

The aim of this study is to assess and discuss the anticipated effects of trade liberalisation in Kenya. The specific objectives of the study are:

To assess the effects of the COMESACU/ COMESACET on trade creation, trade diversion, exports, imports, revenue effects and welfare implications on Kenya;

To assess the effects of the COMESA free trade agreement on trade creation, trade diversion, exports, imports, revenue effects and welfare effects in Kenya;

To assess the impact of EPAs on trade creation, trade diversion, quantity of exports, quantity of imports, revenue and welfare effects in Kenya;

To evaluate the effects of the WTO FTA on trade creation, trade diversion, quantity of imports, quantity of exports plus the revenue and welfare effects in Kenya;

To assess the effects of BFTA on trade creation, trade diversion, exports, imports, welfare and revenue implications in Kenya;

To assess and determine a trading bloc that would be more beneficial to Kenya among the COMESACU, COMESAFTA, EPA, WTO, as well as the various BFTAs, and

To suggest policy recommendations on methods for improving the performance of the various free trade agreements and Customs Union agreements in Kenya.

1.5 Research hypotheses

In this study, the research will be testing the following hypotheses:

$H1_0$: Trade liberalisation will lead to trade creation and welfare gains on Kenya.

$H1_1$: Trade liberalisation does not lead to trade creation and welfare gains for a country.

$H2_0$: Trade liberalisation cause revenue loss in Kenya.

$H2_1$: Trade liberalisation does not lead to revenue loss.

$H3_0$: Trade liberalisation has a positive increasing effect on exports and Imports.

$H3_1$: Trade liberalisation does not have a positive increasing effect on exports and imports.

$H4_0$: COMESA is the leading and most important trading partner for Kenya among the EPAs, WTO and the BFTAs.

$H4_2$: COMESA is not the leading and most important trading partner for Kenya among the EPAs, WTO and the BFTAs

1.6   Significance of the study

The purpose of this study is to fill the gaps and to add to the body of knowledge in the literature on the impact of trade liberalisation on trade creation, trade diversion, revenue, welfare, imports and exports in Kenya. Like any other developed and developing economy trade plays a major role in the national economic development process. This has been emphasised in the earlier section discussing the differing positions of former researchers whether or not the African and developing economies would gain from trade liberalisation or whether the cost of trade liberalisation would exceed the gains. The influence of trade liberalisation on an economy is still unclear, more so in developing economies.

A study by Ju, Wu and Zeng (2009), shows that the influence of trade liberalisation on both exports and imports is highly dependent on the tariff rates. The authors noted that the influence of trade liberalisation on the trade balance is of great significance to policy makers. The influence of trade liberalisation on imports and exports of a country, and its significance to policy makers necessitates empirical investigation.

Ju et al (2009) showed that previous researches that endeavoured to examine how trade liberalisation influences a nation's imports found that trade liberalisation has a positive influence and impact on trade (Bertola & Faini

1991; Santos-Paulino 2002a). Empirical studies focusing on the impact of trade liberalisation on exports reported mixed findings. Some studies showed positive effects on export performance (Thomas, Nash & Edwards 1991; Ahmed 2000; and Santos-Paulino 2002b), whilst other studies showed negative effects on export performance resulting from trade liberalisation (Jenkins 1996).

This study makes an important policy contribution to Kenya and many other developing countries, which have entered into multiple trade agreements, as it gives a clear indication that a study should be carried out to assess the major trading partners for a country like Kenya. This study also highlights the effects of the past and current trade-liberalisation protocols.

The significance of this study lies therein that it highlights the various effects of trade-reform policies on variables such as imports, exports, revenue, consumer welfare, trade-creation effects and trade-diversion implications. This study recognises that ample literature is available on trade liberalisation, but the results of trade liberalisation differ from one country to another. This necessitates further investigation.

Although there are guidelines in theory on the possible implications of trade liberalisation regarding the above-mentioned fundamentals, the results differ from country to country. Hence, an empirical study is vitally important to examine what the impact of trade liberalisation has been on Kenya. It is more important for Kenyan policy makers ascertain which of the many trade agreements have been beneficial, and which a burden to the nation. This is necessitated by the fact that most developing countries hurriedly rushed into various trade agreements without examining the long-term effects thereof.

This research found that few studies were conducted to compare the effects of trade liberalisation using the WITS/SMART model. Furthermore, few studies, for example those of Karingi (2005) and Hamilton (2009), made and effort to compare the effects of the various trade agreements in Kenya. Most studies

dealt with small parts and sections of trade liberalisation in Kenya, leaving room for more studies to be conducted to determine the impact of trade liberalisation in Kenya. This study also adds impetus to the few studies on the impact of trade liberalisation policy reforms regarding aspects of trade creation, trade diversion, exports, imports, and welfare and revenue effects in Kenya.

Against this background information, the researcher considers this study to be a current issue that fills a gap in the existing body of knowledge on Kenyan trade policies, especially with the use of the WITS/SMART modelling approach, which provides a new dimension to the results for analysis.

Finally, this study comes at an opportune time, as it will be used as a key instrument to shape future trade negotiations with any trading partners after assessing the performance with other trading partners in various regional trade arrangements. These policies are fundamental in addressing the key problems facing the African continent, such as the food shortage and the improvement of trade performance. Studies of this nature can be used to improve Kenya's trade performance in both social and economic sectors. It considers how Kenya intends to benefit from the possible trade agreements of the SADC/COMESA/EAC tripartite agreements in Kenya, which are currently under way. This would only be clearly understood through an in-depth analysis of the effects of trade liberalisation on trade-creation, trade diversion, revenue effects, and finally, the welfare effects for Kenya (Makochekanwa 2012).

The outcomes of this study should also be of significance to many stakeholders. These stakeholders include the developmental partners, investors, manufacturers, civil society, the banks and regulators, the Ministry of trade and international affairs of Kenya, the Kenya Chamber of Commerce the Central Bank of Kenya and other government departments in charge of policy formulation.

The past developments, negotiations and discussions on trade call for a comprehensive study on trade to fill in the knowledge gaps. This study illustrates the impact of past trade liberalisation results and the various planned trade conventions. This study would therefore advance propositions to Kenyan policy makers, stakeholders and negotiators regarding the effects of such commitments. Lastly the findings of this study are expected to have a greater positive influence and effect on third world countries, specifically those in Africa.

1.7 Layout of the study

This thesis comprises 10 chapters organised as follows:

Chapter One provides an introduction to the study – mainly describing the aspects of trade liberalisation. This would include the advantages and challenges for countries adopting trade liberalisation and would also include Kenya's experience in trade liberalisation. It then discusses the problem statement, the aims and objectives of the study, the research hypotheses of the study, the benefits and significance of this research study, the layout of the study, and finally a summary of the chapter.

In Chapter Two, this thesis examines the literature review through Kenya's macro-economic framework, trade policies and trade management. The structure of Kenya's economy will be discussed, highlighting which sectors were included on Kenya's development agenda. In the macro-economic context, the growth trends in Kenya's gross domestic product are investigated. This chapter also discusses the various trade agreements Kenya has entered into, including the EAC, COMESA, EPAs, AGOA and the WTO as well as any other bilateral agreements Kenya has entered into.

Chapter Three pays attention to Kenya's trade performance in the various regional bilateral and multilateral trade agreements. Chapter Four provides an overview of the theoretical and empirical literature. This includes various

aspects of trade liberalisation, including features of trade creation, trade diversion, and the static and dynamic benefits of regional integration, aspects of the economies of scale and other policies of trade integration and empirical studies are discussed. This chapter concludes with a summary of Chapters Three and Four.

Chapter Five of this thesis explains the research methodology and discusses the origin and development of the partial-equilibrium model. The presentation of the model in trade creation, trade diversion, trade expansion, the revenue effects, the WIST/SMART assumption and its relevance in Kenya are discussed. The chapter also describes the various scenarios, data sources, manipulations, sensitivity and robustness tests in detail.

Chapter Six presents the empirical findings on the impact of the EPA on Kenya and discusses the EPA trade agreement with Kenya. The SMART model simulation results are presented and analysed - paying special attention to trade creation and the trade-diversion effects, the revenue effects, the consumer welfare effects, the impact on exports and imports.

Chapter Seven presents the results and the empirical findings from the bilateral free trade agreements with Kenya. This study dealt mainly with the leading ten trading partners with Kenya. Chapter Eight explores the empirical results and findings on the effects of the WTOFTA on Kenya, along with its economic meaning and interpretation.

In Chapter Nine, this study provides the empirical findings of the various effects of COMESACU and COMESAFTA on Kenya. The economic meaning and interpretations from the findings are elaborated on further.

Finally, Chapter Ten concludes the study by providing a linkage between all the results from chapters six, seven, eight, nine and ten. This section compares all five trade agreements, highlighting the strengths and weaknesses of each, and

how Kenya can expect to gain optimally. It also provides findings, conclusions, and areas for further studies and the policy implications for Kenya's policy-makers to examine and consider applying them.

1.8   Summary of the chapter

This chapter introduced the cognitive object of the study, which is the impact of trade liberalisation on Kenya. Trade liberalisation practice was first carried out in the developed countries and adopted by most developing countries as a means to stimulate trade, investment, economic growth, and eventually to reduce poverty. Trade liberalisation is still occurring today, making this study significant in adding to the existing body of knowledge. Several sets of arguments for and against trade liberalisation have been presented and the various effects it has on the economic growth and development indicators.

A revision of the merits and demerits of trade liberalisation to a nation was conducted. This led to assessing the gains and challenges of trade liberalisation - not only to an individual nation, but also to the whole economic bloc namely COMESAFTA, EPAs, BFTA and the WTOFTA. Among the merits realised regarding trade liberalisation is the weakening of negative features of monopolies through competition from international producers. This would eventually result in lower prices and better quality services among the consumers leading to an increase in welfare, which this study seeks to determine.

In this chapter, the challenges of trade liberalisation were looked into. This included revenue losses in their first experience of trade liberalisation and the infant industry argument. Most nations were interested in protecting their young industries against cut-throat competition from developed industries in the international market. In other instances, trade liberalisation may not create employment opportunities in the short run, owing to some firms declining in competitiveness, thereby leading to structural unemployment.

Kenya entered into regional trade agreements with EAC, EPAs, WTO, COMESA and bilateral trading partners to gain markets for its industrial products in the form of exports. Varied arguments in respect of the effects of trade liberalisation have been raised, of which most were unable to quantify whether the loss of tariff revenue through trade liberalisation was commensurate with the profits Kenya gained through open markets with its trading partners. This led to the study exploring possible effects of trade liberalisation on trade aspects such as trade-creation, trade-diversion, exports and import quality-quantity effects, revenue, welfare and finally the consumer-welfare effects.

The following chapter of this thesis will examine the various Kenyan trade policies and trade-management structures employed for strengthening trade liberalisation in Kenya. The study will primarily analyse specific trade policy instruments, the interest rates fluctuation, and bilateral, multilateral and regional integration agreements. The discussion will focus on examining the different trade arrangements and the trade regimes in Kenya, which would be fundamental in explaining the growth trends in Kenya as they relate to its current position.

CHAPTER TWO
KENYAN TRADE POLICIES AND ITS MACRO-ECONOMIC DYNAMICS

2.1 Introduction

Chapter Two of this study investigates Kenya's macro-economic dynamics along with the changes in their trade policies and, the influence of trade-policy reforms on revenues is discussed. This study gave priority to the examination of the trade-policy regimes and the trade-liberalisation developments in Kenya. This is because it is considered to be the foundation and the starting point for analysing the present condition. Thereafter, this should provide room to assess the impact of policy changes on the key variables in trade.

This section also analysed the trade-policy instruments, the impact of specific interests, as well as bilateral, multilateral and regional trade agreements. This chapter was structured as follows; Section 2.1 of the study presents the introduction of the study. Section 2.2 describes the structure of Kenya's Economy. Section 2.3 discusses the macro-economic dynamics and the examination of Kenya's Economy. Section 2.4 provides a definition of trade policy and examples which this study explored. Section 2.5 outlines the evolution of Kenya's trade policies, while Section 2.6 examines the importance of customs revenue to Kenya. Finally, section 2.7 provides a summary of the chapter.

2.2   The structure of Kenya's economy

Kenya is a country located in East Africa bordering the Indian Ocean on the eastern seaboard. Somalia is in the North Eastern side, Ethiopia in the North, South Sudan in the North-west, Uganda in the West and Tanzania in the South. The country has a total area of 582,650 square kilometres (224,962 square miles) (EAC 2015). It is nearly twice the size of Nevada (A western U.S.A. state). Kenya has a coastline of 536 kilometres (333 miles). Nairobi, the capital of Kenya is largest city, and located in the centre of the country. Kenya has a

projected population of 45,925,301 people, with the female population estimated to be 23,017,801 (Tignor 2015).

Kenya has a market-based economy with minimal state-managed enterprises and infrastructure (Njuki, Waithanji, Sakwa, Kariuki, Mukewa & Ngige 2014). This means that the country maintains a liberal external trade system. Kenya, as a country has generally been perceived as the financial centre for transport services and the communication hub for Eastern and Central Africa. The major industries include Forestry, Agriculture, and Fishing, industrial manufacturing, energy, mining and minerals, financial services and Tourism.

Kenya is also estimated to have a Gross Domestic Product of $69.977 million as at 2015 (World Bank 2015). This renders it the 72nd largest economy in the world, with a GDP per capita estimated at $1587 (Hassan 2015).

Kenya is an investment-friendly destination with several regulatory and policy reforms that have simplified both local and foreign investment. This includes the government created export-processing zones, which boost foreign trade (Hassan 2015). The rapid growth of the export-processing zone has yielded an immense output from foreign direct investment. This sector has facilitated foreign inflows into Kenya through various remittances. When compared to most of its neighbours, Kenya has a well-developed physical and social infrastructure (Tignor 2015).

The economic-development prospects, as at March 2014, indicate a positive GDP growth trend, expected to be in the region of 5 per cent (EAC 2015). Considerable growth and expansion took place in the transport, telecommunication and construction sectors. These developments have been sustained by a large pool of English-speaking professional workers who have helped to improve computer literacy among the Kenyan youth (Jedwab, Kerby & Moradi 2015).

During the financial years 2013 and 2014, the key sectors in the Kenyan economy, which included both local and regional trade that contributed 13 per cent of Kenya's gross domestic product. It was followed by 10 per cent on transport, 31 per cent by the service sectors, and 29 per cent of the gross domestic product was derived from agriculture (EAC 2014).

The largest contributor to Kenya's gross domestic product is the service sector. It contributed 31 per cent of the GDP in 2013, and projections are that it will grow to 58 per cent by 2014 (EAC 2014). The determination of the service has been critical in negotiations on free trade and customs union agreements – especially tax contributions by citizens in active service.

The agricultural sector in 1980 contributed 33 per cent of Kenya's National GDP (World Bank, 2014). In 1990, the total value of agricultural produce was 30 per cent of the Gross National product. It increased to 32 per cent in 2011, and declined to 29 per cent in 2013. Kenya possesses fertile land, which comprises 15 per cent of Kenya's total land area. Kenya practises both subsistence and commercial farming. From the period 2005 to 2014, agriculture comprised 50 per cent of Kenya's exports in the form of primary products and processed products (EAC 2014).

The key cash crops include horticultural products, tea and coffee. These are the main contributors to Kenya's agricultural exports which are mostly destined for the European markets. The demands for reciprocal response from trading partners by the EU in the year 2007 made many African states, including Kenya, reconsider whether the EPA treaty was worth its price. They were mainly concerned about the superior competitors from the EU who may cause closure of the infant industries in Kenya (Kohl 2014). This makes this study relevant as it would determine whether Kenya has really benefitted from its agricultural exports and to what extent has it contributed revenue and welfare gains for Kenya.

The industrial and manufacturing sectors have been fluctuating in the past 31 years (GOK, 2013). Githanga (2015) showed that by 1980, the manufacturing and industrial sectors contributed 21 per cent of Kenya's gross domestic products. It decreased again to 17 per cent by the year 2000. In 2011, it rose slightly to 19 per cent. The sectors' contribution to GDP fell to 12 per cent in 2013. Kenya boasts the most highly developed industrial sector, compared to the other five East African Community countries (EAC 2015). This is important to policy-makers; as before the collapse of the East African Community in 1977, the sharing of benefits from the East African community was a contentious issue. This was because Kenya was perceived to gain more from the EAC's joint business and investment projects (Bennett, George, Rodriguez, Shearer, Diallo, Konate, Dalglish, Juma, Namakhoma, Banda & Chilundo 2014).

This Industrial sector stagnated in the 1980s because of the shortage of hydroelectric power, the dumping of cheap imports by developed countries, especially textile products, a dilapidated and poor transport infrastructure, and finally, the high cost of energy (Herbst 2014). Kenya's dominant industries are the food-processing industries, such as beer production, sugar cane crushing and grain milling (GOK 2013).

The United Kingdom is the largest industrial investor in Kenya, followed by the United States (UN COMTRADE Statistics 2016). Kenya's industrial sector was boosted by its inclusion in the list of America's beneficiaries in the AGOA treaty. This provided a big boost to Kenya's industrial growth showing evidence that trade liberalisation initiatives through the AGOA agreement may have positive benefits, although Kenya had not accounted for its price (Herbst 2014).

Kenya is dependent on other key sectors, such as transport, trade and infrastructure (Jedwab, Kerby & Moradi 2015). Among the other key sectors are the forestry and fishing sectors, which have grown fast, despite the problem of over-fishing. The mining sector received a big boost with the discovery of oil

(Mutegi 2014). Mutegi (2014) postulated that Kenya would be the first East-African country to begin exporting crude oil, as soon as 2017 and the tourism sector projected to contribute 63 per cent of Kenya's gross domestic product. The financial services have increased considerably in Kenya, with the Nairobi stock exchange being ranked 4th in Africa for its superior services in market capitalisation (Gachiri 2014).

Studies are yet to determine what level of growth has been attributed to trade liberalisation and what prices Kenya paid in return; this reason makes this current study essential in determining what Kenya has gained from trade liberalisation and to which trade agreement among the WTO, EPA's, COMESA FTA, COMESA CET and the BFTA's can changes in economic trends be attributed. This will be explained in greater detail by the discussion on Kenya's macro-economic dynamics structure in the following section.

2.3   Kenya's Macro-economic dynamics structure

Kenya is regarded as a regional hub for both finance and trade in the East African region and COMESA (Economic Watch 2014). It is also considered a natural entry-point, with a great market-based economic system with liberalised international trade policies (Were *et al.* 2013). Kenya has had a fluctuating and inconsistent economic growth since 1963 when it gained independence. Kenya achieved a steady economic growth rate of 6 per cent, which later declined to 4 per cent in the subsequent decade. In the 1990s, Kenya's economic growth rate fell to 4 per cent. At the peak of the millennium, Kenya's growth rate rose again to peak at 7 per cent in 2007 (Jedwab *et al.* 2015). The growth in Kenya's gross domestic product and its exports are illustrated in percentage terms in Figure 2.1 from the year 1994 to 2014.

Figure 2.1: Kenya's GDP and exports annual growth rates as a percentage
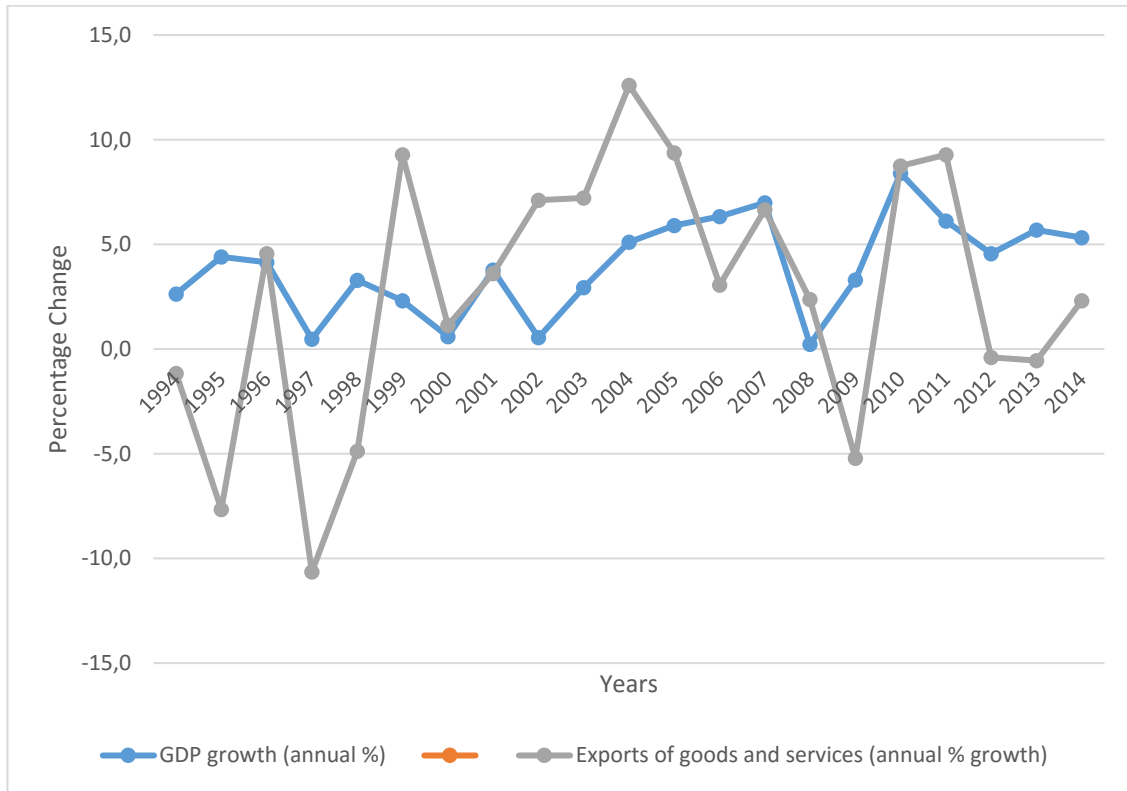
The positive growth trend illustrated in figure 2.1 was highly affected by the early 2008 post-election violence that jeopardised the tourism industry and reduced investor confidence (Finkel, Horowitz & Rojo-Mendoza 2012). This problem was concurrently coupled with the global financial and economic crisis; especially affecting the quantity of remittance and exports to Kenya. The GDP dropped to 1.7 per cent growth in 2008 (Were et al. 2013). The economy recovered again between the years 2010-2011, after the long-awaited peace deal was signed between the warring factions.

The GDP growth rate increased to 9.3 per cent in 2011 and the Kenyan economic prospects were at their best compared to other East African Community partners (World Bank 2014).

Kenya was projected to register impressive results for being among the first EAC countries that were able to move from a low-income country status to a middle-income country status. This was affected by frequent drops in exports and GDP during the years Kenya conducted its presidential elections (1997, 2002, 2007 and 2012) in the graph (World Bank 2015). This has also worked against trade liberalisation by affecting the free movement of goods to the neighbouring Uganda where Kenya exports most of its industrial exports to (UNCTAD 2015). The country was able to make use of tight monetary policies and fiscal policy consolidation, in order to decrease and contain the high inflation rates to a single digit figure. The Kenyan shilling was able to stabilise significantly after picking up from its weakening trend in 2011 (Were *et al.* 2013). This move placed Kenya in a better position to benefit from trade liberalisation ventures with its regional trading partners.

Kenya has been able to forge many trade agreements with regional blocs, which include EPAs, the EAC, COMESA, AGOA, WTO, along with numerous bilateral trade agreements. All these were aimed at boosting Kenya's exports and to create a wider market for its domestically produced goods through trade liberalisation (Omolo 2012). These trade agreements pushed Kenya to intensively invest in export promotion, and in transport infrastructure that would significantly strengthen Kenya's position to compete globally and in the continent; thereby accelerating economic growth (Were *et al.* 2013).

Omolo (2012) stated that to a great extent COMESA and other regional trading blocs have been able to enhance commerce in the region through its pro-private sector initiatives, pro-liberalisation and pro-market policies. Omolo's study (2012) left gaps on the influence of trade liberation especially on trade variables such as trade creation, trade diversion, revenue, exports, imports, and welfare effects that this study intends to research. This study will examine the importance of trade liberalisation policies presented in the following section that defines trade policies.

2.4   Trade policy defined

Perkins, Radelet, Lindauer and Block (2012) defined trade policy as a collection of rules and regulations used by a nation or a country to oversee trade inside and outside a country. The WTO (2012) report indicated that trade policies are fundamental in enabling the smooth administration of international trade transactions through the setting of goals and standards to be maintained by all trading partners and potential partners. This is done to ensure that there are mutual benefits to be had by all the member states participating in the trade deal.

Amadeo (2012) argued that it is fundamental for all countries to have a national trade policy. This would be beneficial in not only guiding, but also managing all affairs relating to the import duties, export taxes, tariffs, quotas and inspection regulations of goods and services in international trade.

Economic Watch (2010); IMF (2008) and the WTO (2011) all agreed that policies are fundamental to ensure the proper application of tariff and non-tariff barriers to international trade; since they can be used or designed to influence competitive conditions in the markets. These policies are also fundamental in justifying why some trade barriers are imposed. These may generally be issues, such as environmental protection, health standard requirements and the safety of the citizens.

Before the Bretton Woods conference of 1944, which emphasised trade liberalisation, many countries used barriers, such as foreign-exchange controls, quotas, administrative barriers and other non-tariff barriers to trade in order tocontrol the direction of trade flows (Perkins *et al.* 2012). Among the countries in Africa, which largely used non-tariff barriers of up to 100 per cent, are Ghana, Malawi, Nigeria, the United Republic of Tanzania and Zimbabwe (UNCTAD 2008).

It is essential to remember that the WTO in the current decade has been vocal in advocating for trade liberalisation. These measures have led to the reduced use of the various non-tariff measures by most nations. UNCTAD insisted on the adoption of the policies that would lead to the conversion of the various non-tariff barriers (NTBs) to equivalent tariff rates through a process called tariffication (WTO 2014). Bora *et al.* (2002) also noted that Africa is now among the many regions in the world where there is widespread use of non-tariff barriers to gain a competitive benefit against its trading partners. The increased application of NTBs was often by most-developed countries primarily in the European Union. They gave reasons, such as environmental protection, sanitary safety, social effects, and the strict observation of rules of origin.

The data indicate that most African countries have relaxed their trade barriers considerably; whereas exports in the USA, the EU and Japan are restricted by their non-tariff barriers (UNCTAD 2008). In the following section this study will consider trade policy instruments, such as tariffs to evaluate the impact of trade liberalisation in Kenya.

2.5   Kenya's trade policies and trends

Kenya gained independence on the 12 December 1963, when it inherited many trade and industrial policies already established from the colonial rulers, which were mostly aimed at import substitution (Gertz 2009). This means that import substitution strategies were intended to protect various domestic industries from competition from other producers in the rest of the world. This in turn helped the local and domestic industries to make a profit although much of their industrial capacity has been underutilised (GOK 2007).

This situation led to the Kenyan manufacturers becoming more introverted and failing to venture into the international market. Kenya was forced to sign the structural-adjustment-loan programme for the first time in 1980 (Khasiani & Ndung'u 1996). This was given on condition that the Kenyan government should adopt a more liberalised trade system and interest regime. Kenya was

also asked to keep an outward-oriented trade and industrial policy. All these were written on paper, but the will to implement these changes was practically non-existent. This caused the government in 1982 to promise a more liberalised approach to trade and industrial policies as it approached the International Monetary Fund for more capital assistance (Gertz 2009).

It is important to note that the Kenyan trade policy has evolved over time. It changed from an inward-looking trade policy regime to a regime which preferred export promotion of both intermediate and consumer goods. While all this was happening, the government was desirous to create a stable base to promote the production of capital goods – both for domestic and export markets (GOK 2000). Many incentives, such as relief on duties payable, VAT remission, export-processing-zones amnesty and bond schemes afforded Kenya higher expectations of reduced unemployment problems, improved balance of payment conditions, and finally higher pay from the foreign-exchange earnings (WTO 2000).

The Government of Kenya, with the aim of increasing the export-oriented business projects, set up export-processing zones in 1990 (GOK 2007). The incentives designed to attract many firms in the export-processing zones led to increased numbers of EPZ companies in Kenya from 36 in 1990 to 114 in 2013 (GOK 2013; Soi, Koskei, Buigut & Kibet 2013). Among the other incentives of government to promote growth and development in Kenya was through price liberalisation which greatly supported trade liberalisation with other international partners (GOK 2007); hence, the need to quantify the impact of trade liberalisation policies and practices on Kenya's economy, especially with the evidence of considerable commitment by the Kenyan Government .

The key trade and economic reforms that the Kenyan Government initiated, aimed at promoting both import and domestic licensing, such as the liberalisation of foreign exchange, price controls, reduction of the import tariffs and duty, and finally, the partial liberalisation of the capital markets in the

country (GOK 2009). Kenya also went ahead to commit itself to the gradual reduction of tariff and non-tariff barriers, which worked against international trade and trade liberalisation. Considerable pro-liberalisation efforts have been witnessed in Kenya. This included reduced protectionism, the removal of most NTB's to trade, increased multilateral commitments, more transparent and predictable legislation (Gertz 2009). It also affected trade and foreign investments, which were key strategies in Kenya to attract foreign-direct investments, to show compliance with the requirements of the WTO (GOK 2009).

The need for trade liberalisation, competitiveness and globalisation has been a fundamental requirement in Kenya's development program. This indicates a need to assess the trade ventures with the various trading partners with the aim to determine their comparative gains and negative effects to Kenya. This would aid policy makers to develop a policy approach mechanism to correct and facilitate optimal gains from trade liberalisation. The evaluation of the various trade treaties is essential to determine their origin and core objectives in order to assess its impact on Kenya as presented in the following section.

2.5.1 Assessment of Kenya's Trade Pacts

The government of Kenya, in its efforts to pursue growth and trade expansion entered into numerous free-trade agreements, which include the EAC, EPA's, COMESA and the WTO (WTO 2014). The government of Kenya also consented to many bilateral trade agreements with the most-favoured nations and the first-world countries (WTO 2013). Trade agreements with all these nations were mainly intended to ensure further trade liberalisation and its increased commitment to further liberalisation of trade. This becomes evident in the discussion of the WTO, EAC, AGOA, COMESA and the bilateral trade agreements.

World Trade Organisation

Hoekman and Mavroidis (2015) defined the World Trade Organisation as an inter-governmental body or organisation that deals with the regulation of international trade. The WTO formally began its operations on the 1st January 1995 under the Marrakesh agreement, signed by 123 countries and nations on 15 April 1994 (WTO 2014). This was a sign of the general agreement on trade and tariffs (GATT), which began in 1948, and would eventually be replaced by the newly formed WTO.

According to the WTO (2014), its key mandate would be the regulation of trading activities amongst the participating member countries. This would be done through the provision of a framework for negotiating trade treaties and agreements. A further mandate also covers dispute resolution to enhance the adherence to the WTO rules and regulation. These were later signed by the government representatives and ratified by their respective parliaments (Hoekman & Mavroidis 2015).

The WTO (2011) argued that the centre-piece of GATT is the developed nations or the Most-Favoured Nations (MFNs). This principle was enunciated in its Article 1. Consequently, in matters and issues regarding trade policies, each WTO member gave all its members equal favours, advantages or immunity. An important inference of this provision is that associate nations are not to discriminate in their tariff policy towards other members.

Kenya joined GATT on 5 February 1964, and the first African country and founder member being Zimbabwe that joined on 11 July 1948. The immediate benefit of being an associate of the WTO for Kenya is that Kenya was then able to enjoy the Most-Favoured Nation (MFN) status, and the National Treatment Clauses, out of 152 members of the WTO (WTO 2011). The most-favoured nation clause meant that a nation could not discriminate against any other member state. Any form of benefits or preferential treatment had to be applied to all the member countries. The national treatment principle forbids a nation

from any discriminative practices in its tax and non-tax laws on similar products in the domestic market (WTO 2010). This meant that Kenyan exports would not be subjected to any unfair treatment on the export market.

The discussions concentrated on issues such as the non-agricultural market access-NAMA, agriculture, trade facilitation, trade in services, and trade-related intellectual property rights (TRIPS) (WTO 2010). The conferences on agriculture were intended to significantly improve market access for those products from developing countries. This would then be useful in limiting or ultimately removing all forms of export subsidies and trade-destabilising support (WTO 2014). NAMA negotiations were also aimed at reducing or abolishing of the tariff peaks, tariff escalation, as well as non-tariff obstacles on products of export interest from third-world countries (WTO 2013).

The conferences intensely observed the possibility of reduced commitment among the African nations. Kenya, along with other developing countries, expected the tariff cuts among developing countries to be much lower, in order to encourage competitive exports (Qureshi 2015). The majority of the African leaders were of the opinion that a flexible tariff rate would allow room for the domestic industrial sector to grow, along with the support of regional integration activities (WTO 2014).

The WTO (2014) stated that the promotion of competitive exports and global trade-tariff reductions was a necessary improvement for trade liberalisation. It was also noted that most developing countries were advocating improved market access to service sectors. The discussions on trade facilitation were to clear and improve the relevant aspects of Article V (dealing with the freedom of transit of goods from other WTO Member States), Article VIII (dealing with trade-related fees and formalities) and Article X, which deals with transparency in the regulation and administration of trade regulations (WTO 2014).

Discussions in the TRIPS Treaty were to set a clear minimum standard that would be instrumental in aspects, such as intellectual property in the form of copyrights, patents, geographical indications and trademarks (WTO 2004). During the Doha Ministers' meeting, it was emphasised that the benefits of implementing and interpreting the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement were favourable in supporting public health through the increased access to existing medicine and the development of new medicines (Qureshi 2015). These negotiations also dwelt on the improvement of health systems through establishing a strong pharmaceutical industry.

Aid and trade were also key issues in the Doha Development Schedule; since its benefits would cut across all the areas of negotiations. The Doha agreements gave room for consideration of all the special and differential (S&D) dealings with the intention of making them more precise, effective and functional (WTO 2014). The special and differential dealings remain very significant for the third-world countries as they are fundamental in enabling them in the implementation of their obligations. These would include the provision of policy space, flexibility and more balanced rules (WTO 2004).

Kenya found the rushed conclusion of the Doha negotiations unwise and not acceptable. This is simply because it did not reflect the most recent developments and the views of all the members. Due to the differing expectations, renewed protectionism tendencies, and the need to save economies from the global economic crisis, talks were very necessary as they moved quite slowly since 2008, when they started.

This study is concerned with the required time that would enable the country to assess the effect of the WTO on various aspects, such as trade creation, trade diversion, import, export revenue and welfare.

The African Growth and Opportunity Act (AGOA)

In 2000, the United States of America congress agreed to pass the AGOA pact. It was a USA program aimed at providing trade preference to countries in the Sub-Saharan Africa (SSA) countries (Edwards & Lawrence 2014). This would aid bringing out a market-controlled economic growth status along with strengthening the ties with the US through investments and trade with the African region (Craig 2015). Since the enactment of the act creating the AGOA, it has been revised at least five times. This includes reviewing the trade preferences and the modification of some technical aspects done as late as 30th September 2015 (Kassa 2014).

The United States Trade Representative (USTR) repeatedly indicated that "AGOA has been the cornerstone of America's economic engagement with SSA over the past fourteen years." They also noted that the economic conditions in Africa had improved significantly since the US Congress approved the original AGOA legislation (Kassa 2014).

Anderson and Philemon (2014) stated that since AGOA was enacted in 2000, the growth trends of the Sub-Saharan Africa, growth rates averaged 6.3 per cent, which is far above the world average of 3.9 per cent between the years 1990 and 2000. Despite much credit on AGOA this study did not deem it necessary to further assess the impact of AGOA on Kenya because a significant volume of work from previous researchers exists.

Economic Partnership Agreement (EPA)

The first contractual agreement between the EU and the ACP states is known as the Lomé Convention. It was ratified in 1975 in Lomé Togo (Pape 2013). In this Act, the European Union promised to deliver development aid funding, and preferential export-market access to the ACP nations. It is important to note that the fourth cycle of the Lomé Convention was on 29 February, 2000. Before the expiration of the Lomé IV Convention, a consultation summit among the EU

and the ACP took place to explore the available options for the Post-Lomé arrangement (Lui & Bilal 2009; Lang 2006).

The Cotonou Partnership Agreement (CPA) signed on 23 June 2000, in Cotonou, Benin was a replacement of the Lomé IV Convention. It envisions to be in operation for 20 years that extends to 29 February 2020. This convention has been important in providing a framework for trade, economic aid and political ties between the European Union and the ACP countries. The Lomé Convention's non-reciprocal trade preferences came to an end on 31 December 2007 (Lui & Bilal 2009).

In February 2004, the ACP states and the EU launched the EPAs, thereby replacing the Cotonou Partnership Agreement (Lui & Bilal 2009). The major objective of the EPA was to promote the development of ACP countries. The EPAs also aimed to foster the smooth integration of the ACP into the world economy through sustained developments and contributions to poverty eradication (Lui & Bilal 2009; Lang 2006 and Karingi *et al.* 2005).

The Convention provided a framework for trade, aid and political relations between the EU and the ACP countries. This conference under the Lomé convention with the ACP countries was meant to provide a free and non-reciprocal right of entry to the European Union market for all products. This deal provided enough scope for the European Union to provide certified and authorised assistance to 71 ACP countries through the European Development Fund (Lui & Bilal 2009; Lang 2006 and Karingi *et al.* 2005).

The Economic Partnership deal signed between Kenya, ACP countries and the European Union came into effect on 23 June 2000, in Cotonou, a city in Benin. This was called the African Caribbean and Pacific-European Union partnership agreement (ACP-EU partnership agreement). This agreement was to be concluded within twenty years from March 2000 until February 2020 (Chaban, Elgström, Kelly & Yi 2013).

It is also necessary to note that this agreement came into effect in April 2003. It was then revised in June 2005 and the revision was implemented on 1 July 2008. A second round of amendments was enforced on the 11th March 2010.

Zgovu and Kweka (2009) argued that the African developing countries have been pushing for more recognition in the trade deals with the developed countries. In so doing, they argued that instead of receiving aid, they should be more active trading partners (Woolcock 2013). This caused the present-day talks to be centred on a number of fundamental issues, which include an improved scale of liberalisation and institutional support assistance. It also takes into account an extended transition period of duty free trade, aid and long-standing development-backing initiatives to expand export-supply volumes, trade acceleration, besides technical capacity construction in trade-policy analyses for the developing nation.

Among the measures intensely monitored, was the safeguarding of the ACP nations' export and industrial expansion. It sought to reduce the measure and practice of non-tariff methods or technical obstacles to trade in the European Union that partially hindered the ACP states from accessing the European markets and trade-remedial actions (Chaban *et al.* 2013).

Economic watch (2014) noted that Kenyan exporters who had interests in the European market received some relief after the Kenyan-EU secretariat signed a deal that relieved them from the looming tax burden under the EPA in Brussels. According to Kibet (2014), the announcement that the EAC member states had finally reached a deal with the EU two weeks after the fixed deadline had expired, was a great relief to exporters and stakeholders.

The ministry of Foreign affairs and international trade stated: "The three areas that remained outstanding namely: export taxes, export subsidies and the relationship between the Cotonou agreement and the EPAs were all agreed upon in favour of Kenya".

The Government of Kenya was optimistic that a successful conclusion to this would enable Kenyan traders to continue enjoying unrestricted entry to the European market, as it would provide quota-free and duty-free access to the European markets (Kibet 2014). Kenya's major exports to the EU included agricultural products, fisheries products, flowers, tobacco, raw hides, skin and saddlery (Lui & Bilal 2009). Kenyan imports from the EU comprised industrial products, fishery products, machinery and transport equipment, chemical and related products and appliances. The question arises as to whether Kenya will benefit from the EPA's or not; this will be tested empirically in this study.

Lui and Bilal (2009) also acknowledged that Kenya and the other African nations would greatly benefit by having immediate access to the European market for the next 15 to 25 years. It is important to note that the EPAs agreements go beyond free-trade arrangements as they also provide for a wide range of trade and political co-operation, which would be beneficial to Kenya, as it would provide leverage to enhance their export earnings (Kassa 2014). This political co-operation would lead to strengthening the rule of law in the economic field, which would in the long run attract foreign direct investments (FDI), thereby creating a robust cycle of growth and development (Lui & Bilal 2009).

Whether the EPAs agreement would help create a condition conducive to trade, investment and sustainable development is not doubted, but whether Kenya will benefit from this is of concern to this study. It was agreed that the market deal contributed to the strengthened trade relations between Kenya and the European Union. This was further confirmed by the statement made on September 22, 2014 by the European Union delegation, that "From October 1, 2014 most Kenyan agricultural exports will be subject to EU Generalised Scheme of Preferences (GSP) tariffs. Some goods will still benefit from a zero per cent tariff-line, such as coffee beans, tea and carnations. The duties will still be lower than normal EU tariffs on goods from non-GSP countries."

This implied an improved infrastructure, administration and public service; faster structural reforms that would expand the productive capacity of Kenyan workers or farmers through improved training opportunities and knowledge programme exchange (Woolcock 2013). It further ensured a greater democratic, transparent, politically and economically stable Kenya, which would enhance economic growth and development.

Among other implications of the EPA was the abolition of quotas and duties on exports to the EU (Ousmane 2015). Kenyan farmers and producers would get unrestricted access to the European market, which would be highly profitable to African farmers. The African continent, with a population of half a billion people would benefit from their products being sold at higher profits and their access to a variety of goods from the EU. These advantages would as a result of the trading economies of scale (Lui & Bilal 2009).

Lui and Bilal (2009) mentioned that the other effects of an ACP-EU pact would be less unwarranted trade rivalry between Kenya and the EU. This would in the long run help Kenya and the other African Caribbean and Pacific countries to open their markets gradually to the EU imports and the producers of the highly sensitive 20 per cent of goods would benefit from the long-lasting protection from competition.

The development of a regional market was deemed to have greater benefits, not only to the country involved, but also the whole region. This can be through a stronger bargaining position in trade matters amongst other benefits. The Kenyan farm products and farmers were able to access the European free-trade association nations, which include countries like Norway and Switzerland. This also meant less economic shocks as the EU economy would offer technical support to minimise these (Fontagné, Laborde & Mitaritonna 2011).

COMESA

The establishment and growth of COMESA was considered one of the numerous initiatives towards the achievement of Pan-Africanism by the African leadership and the African states in the post-independence era. COMESA took over the preferential trade area for Eastern and Southern Africa, which was established in 1981. The regional economic community covers a geographical area of 40 per cent of Africa (12 million out of 30 million square kilometres).

The region also has a population of nearly 389 million people (COMESA 2015). COMESA comprises 19 member states, namely Burundi, Comoros, Djibouti, Democratic Republic of Congo (DRC), Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Mauritius, Malawi, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe (COMESA 2015). These members were important in establishing the COMESA FTA and COMESA CU, which are instrumental in the trade liberalisation dealing with Kenya to be discussed in the following section.

COMESA free-trade agreement

COMESA launched the free-trade arrangements in November 2000. The introduction of the FTA meant that most, if not all goods, were to be zero-rated in tax. Zambia is the founding member of both the COMESA with Zambia presently hosting the COMESA Secretariat (COMESA 2014). This regional economic group is working towards pursuing economic co-operation, investment, employment, transport and improved production quality standards among its members.

After 2000, all the member countries in the FTA traded among themselves on a duty-free or tax-free basis. Non-FTA members were granted trade preferences by the members in the FTA on the basis that tariff reductions would be attained. Member states that had not yet effected the minimum tariff reduction were not granted any preferential rate by the FTA member States (COMESA 2014).

The face-value argument regarded the COMESA FTA as potential loss of government revenue with low welfare gains and job losses due to companies shutting down (Hamilton 2009). Brenton *et al.* (2009) argued that this hypothesis of governments' loss of revenue did not foresee the possibility of creating more revenue through trade liberalisation. This makes it imperative for this study to test the impact of trade liberalisation on government revenue, on the basis of the hypotheses suggested.

COMESA Customs Union

The COMESACU protocol was launched on the 8th of June 2009 at Victoria Falls in Zimbabwe (Waglé 2011). A customs union was established after two or more territories agreed not to charge each other tax and duty on goods and services traded between them (COMESA 2014). Each nation opting to be part of this trade arrangement on goods exported to, and all goods imported from, outside their territory as a bloc would be subjected to a common external tariff (CETs).

The COMESA (2010) argued that all its members have adopted a common external tariff of zero per cent on capital goods and raw materials, 10 per cent on intermediate goods and 25 per cent on finished goods.Despite Kenya's efforts to achieve the full benefits of regional integration, much needs to be done by the COMESA secretariat in respect of compliance with customs union arrangements by the participating member states. This study therefore, is fundamental in assessing the comparative benefits of COMESA in line with the research objective. The findings would then be necessary in determining the available policy recommendations to aid Kenya in obtaining optimal benefits from COMESACU.

The East African Community

The East African community is one of the major initiatives by Kenya, Uganda, Tanzania, Burundi, Rwanda, and recently South Sudan, in order to dissolve the trade barriers that previously hindered trade liberalisation and free-trade among

their members (EAC 2015). This inter-governmental organisation comprises six countries with the chairman, President John Magufuli of the Republic of Tanzania. The regional union came into existence in 1967, but collapsed in 1977. The leaders, after consultation on the cost and benefits of the regional bloc agreed to revive it on the 7th of July 2000. In February 2015, the regional bloc had a population of 153,301,178 people. The Nominal GDP was US$ 122,672 billion (EAC 2015). South Sudan joined the five other member states on the 2nd of March 2016 at the 17th ordinary summit of the heads of states and governments (Tanza 2016).

Anderson, Chijoriga and Philemon (2014) argued that trade liberalisation in most developing economies has led to the efficient allocation of wealth from increased trade revenues, which have been used as instruments for job creation, poverty-reduction and increased welfare for its citizens. The potential benefits associated with regional integration include export expansion through tariff reduction, widening of the markets, and the efficient mobility of the factors of production (Topalova & Khandelwal 2011).

Kenya joined the East African Community strategically to increase its trade prospects in the region, which are now evidenced through its vast number of manufacturing industries (Hartzenberg 2011). It is also important to note that the relations between EAC states are symbiotic in nature. This is clearly visible through the dependence on the Mombasa port, which is used by Uganda, Rwanda and Burundi, which are land-locked countries. The Tanzanian sea port in Dar es Salaam is functional, but it has not been used to the same extent as the port of Mombasa. This is due to the structural benefits and geographical proximity - apart from having well-organised freight management services (Geda & Kebret 2008).

The East African Community Free-Trade Agreement
A free-trade agreement is defined as a stage in economic integration, where members abolish barriers to trade among themselves, but they maintain

different national barriers to members outside the trading bloc (Yarbrough & Yarbrough 2014). In this case, countries fully eliminate the customs tariffs on their inner border, in order to reduce the cases of regional exploitation. Here, countries choose to enforce zero tariff rules, in accordance with the certificate of origin of the goods. This is done to protect members within the free trade protocol. It is very important to see that there is a very thin line distinguishing preferential trade agreements and free-trade area stages.

The EAC implemented these stages simultaneously, when it was discovered that some countries had not fully implemented the stages and agreements of regional integration. This has frequently raised a bone of contention – threatening to tear the region apart, when technical challenges arise (Kimbugwe *et al.* 2012a).Geda and Kebret (2008) argue that FTAs in the EAC were done mainly to incorporate harmonised technical standards and liberalised rules, which did not include free-factor mobility, like labour (Kimbugwe, Perdikis, Yeung & Kerr 2012b).

The East African Community Customs Union (EACCU)

Cavusgil, Knight, Riesenberger, Rammal & Rose (2014) argued that the customs union is usually the third stage of an economic integration process. The customs union includes all the aspects of the FTA and preferential trade agreements. In this stage of economic integration, the member countries implement a common external tariff agreement among members who are not part of the trading bloc. The EACCU was ratified at the EAC headquarters in Arusha. At this occasion three heads of states from Kenya, Tanzania and the Republic of Uganda signed the EACCU Union protocol on the 2nd of March 2004 (EAC 2015).

This came into force on the 1st of January 2005. The customs union protocol opened up new areas of investment. It also came at a time when Kenya was raising new concerns of revenue implications, international trade matters

dealing with its manufacturing industry, which was losing so much at that stage of integration (Roberts, Vilakazi & Simbanegavi 2014).

The purpose of this was to set up a common external trade policy that included cases where the EAC members would use different import quotas and specific exemptions to some member countries that would be helpful as a competition policy to avoid competition problems in the bloc (Roberts *et al.* 2014). The IMF (2015) world economic outlook reports showed that the customs union did not give a direct ticket for free factor mobility and policy harmonisation among the member states, but its purpose was to increase the economic efficiency, political, economic and cultural ties among the member countries.

After 1st January 2005 the EAC moved a step forward to the customs union protocol. This meant that the objectives to be achieved were the further liberalisation of intra-regional trade among the member and partner states (Kamala 2006). This also meant the enhancement of domestic and cross-border trade, along with the promotion of foreign investment in the community. Among the main instruments that would be used for the trade liberalisation were the tariff and non-tariff barriers to trade. The customs union provided for the abolition of all internal trade tariffs and any other charges of equivalent effect.

The removal of all non-tariff barriers among the three member states
This also meant that a common external tariff (CET) would be applied on goods arriving from countries outside the bloc, with three tariff bands of 0 per cent, 10 per cent and 25 per cent on basic raw materials, intermediate goods and all finished goods, respectively (EAC 2015). Among the other provisions were that goods arriving in Kenya from Uganda and Tanzania were to be duty-free. Kenyan exports and imports were to be duty-free, and specific goods from Kenya heading into Uganda and Tanzania, were to attract import duties agreeable to all members of the community under a five-member program that would gradually eliminate the internal tariff.

The region realised the following changes from the customs union, namely Zero tariff rates on almost all the goods originating and traded within East Africa. The Common duty rates were to be applied uniformly on all goods imported into the EAC from non-member states.

The community agreed on the reduction to zero duty rates within five years on some goods that originate from Kenya and imported into Tanzania and Uganda. The implementation of the zero rate tariffs on most of the medicines, medical equipment, chemicals, capital goods, agricultural inputs, and raw materials came into effect (EAC 2015). The protection of agricultural production and products, such as milk in all the member states became guaranteed. These efforts confirm that Kenya's determination to further liberalise its markets in order to increase its benefits, led to economic growth and development.

Despite the merits of the EAC pact on trade liberalisation, this study did not proceed to empirically analyse it due to the availability of considerable existent research on the impact of EAC trade liberalisation arrangement on Kenya.

Kenya's bilateral trade agreements

Export expansion and the need for increased benefits of trade liberalisation caused Kenya to enter into many trade agreements with friendly countries; most of them having the status of most-favoured nations. The trade deals ratified or the bilateral trade agreements comprised both countries in the preferential trade agreements and countries in the rest of the world. Kenya entered into more than thirty bilateral agreements across the globe (UNCTAD 2015). Kenya entered into bilateral trade agreements with countries such as the Democratic republic of Congo, Egypt, Germany, India, the Netherlands, Pakistan, the Russian Federation, Rwanda, Tanzania, Uganda, the United Arab Emirates and the United Kingdom.

Quite a number of the trade agreements that Kenya signed and agreed upon has not been fully effected (Kibet 2014). This is due to the fact that some of the trade arrangements were deficient in certain aspects, as they sought compliance with policies on the law of origin of the goods and services, while insufficiently addressing the trade mechanisms required to support trade (EAC 2015).

According to the Mutegi (2016) the Kenyan government is in the process of reviewing the non-active trade agreements, with the aim of amending them to affect the trade benefits. By combining the various regional trade arrangements with the bilateral agreements, enables Kenya to trade with other nations.

This study will attempt to assess the effects of bilateral free-trade agreements on trade aspects such as revenue and on welfare in Kenya. These choices of the nations are based on the trade flows.

2.6   Importance of customs revenue to Kenya

Most of the third-world countries are working on improving their trade incentives. The developing countries which are mostly low-income countries have serious revenue challenges which could become worse if the trade liberalisation gains do not work out in their favour. It is noted that tax is a key component in revenue generation in developing countries. This means that the elimination of taxes through trade liberalisation without alternative means of taxation would lead the country into a revenue crisis; the domestic tax base is smaller and not stable enough to sustain steady economic development (Brenton *et al.* 2009).

Customs services currently do not only focus on tax revenue collection at the border points, but also addresses the removal of the non-tariff barriers to trade; all aiming at fast-tracking economic growth and development through trade expansion (COMESA 2014). This means that increasing the government's revenue is not an option for most developing countries causing the customs

services and customs revenue to remain significant in addressing budget-deficit problems (EAC 2013).

Kenya is among the many developing countries that depend on import revenue as a source of fiscal revenue. Mimano (2014) and the EAC (2014) reported that contributions from the customs duty in 2014, declined from 22.73 per cent to 15.18 per cent from the previous year. This decline has been attributed to the government's continuous execution of the trade liberalisation policies through free-trade agreements and the customs-union agreements. This has led to a reduction in value-added tax and excise duties in the 2013 and 2014 financial years (World Bank 2015). This then justifies the essence of this study, which examines what happens to the country's revenue when trade liberalisation is pushing for withdrawal of taxes, which is the source of revenue for developing countries.

2.7   Summary

This section examined the macro-economic progress in the Kenyan economy and the trade-policy improvements, which the national government adopted, as a result of trade liberalisation. It mainly analysed Kenya's past achievements, the present progress, and future prospects for the economy. It also considered the importance of determining the most suitable trade agreements and treaties that would be beneficial to Kenya. Good infrastructure, an upcoming mining industry, dynamic financial sectors, strong agricultural and manufacturing sectors were factors mostly examined as they are products of liberalisation.

The Kenyan economy has been stable, but it was drastically affected in the years 2007 and 2008, by political turmoil resulting in post-election violence that injured its much coveted tourism industry, which lost approximately US$ 80 million per month for the first quarter, a drop in revenue of about 78 per cent. During this period, Kenya was considered to have a highly unstable macro-economic environment. This is according to the report from the Kenya Association of Manufacturers that reported a loss of more than US$3.7 billion in

the earlier part of the year. It was also evident that in the first half of the year as many as 400,000 jobs had been lost.

The policy-formulating organs of the government were effective in reviewing and integrating trade policies, bilaterally, regionally and multilaterally. The primary aim of this study is to explore the various trade policies Kenya has implemented over the years with its neighbours and trading partners.

The nation's current trade-policy instruments factored in the use of tariffs, non-tariff barrier actions and also trade development measures. Tariff-based measures adopted by the Kenyan government include import duty, export tax and the so-called duty drawback system. The non-tariff barriers adopted by Kenya include the export and import licensing regulations, quality specifications, along with anti-dumping policies, safety policies and the rules of origin.

This indicates that a study should be carried out to examine the influence of trade liberalisation on key economic aspects and indicators, such as exports, imports, trade creation, trade diversion, prices and the general welfare of the citizens especially after the in-depth analysis of Kenya's economy and its performance over the years, considering the entry of many regional trade agreements and trade-policy regimes.

Chapter Three will scrutinise the trends in Kenya's trade performance in the export and import market, along with those of its trading partners. This will include Kenya's trade exports, imports and trade value with its major trading partners, like COMESA, the EAC, the WTO and the European Union - with the aim of exploring trends in Kenya's trade performance in recent years. This will highlight the issues of Kenya's trading partners, which are analysed in this study.

CHAPTER THREE

KENYA'S TRADE PERFORMANCE

3.1 Introduction

This chapter examines Kenya's trading with its trading partners internationally. This study focuses on the characteristics of Kenya's trading in exports, imports and balance-of-trade, along with its neighbouring friends and business partners in the Common market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the World trade organisation (WTO) and the European Union through the Economic Partnership Act or the Cotonou agreement. It mainly scrutinises Kenya's performance in recent years in relation to the trade-liberalisation policy changes in Kenya.

The key aim of this discussion is to assess and determine how Kenya's new trade agreements have affected the trading pattern and trade volumes in recent years. As mentioned earlier, the trading blocs indicate the major stakeholders and trading partners to be analysed in this study. This chapter further outlines the various changes in the trading indicators between Kenya and its trading partners. The chapter is structured as follows: Section 3.1 comprises the introduction to the study. Section 3.2 describes Kenya's trade performance in the COMESA. Section 3.3 examines the performance of Kenya in the EAC. Section 3.4 analyses Kenya's trade performance in the EPA. Section 3.5 assesses the trade performance between Kenya and the WTO respectively.

Among the key areas emphasised in this chapter, there is the identification of Kenya's major export items and their destinations, imports, and trade balances of the countries involved.. In section 3.6 describes Kenya's export by destination by group; while section 3.7 provides geographical sources of Kenya's imports by grouping. Finally In section 3.8 presented an analysis of the composition of Kenya's trade and section 3.9 comprises a summary of this chapter.

3.2 Kenya's Trade Performance in the COMESA

This section discusses Kenya's membership of the COMESA trading bloc, along with that of 18 other member states. An analysis of Kenya's performance within COMESA is inevitable as it enables this study to illustrate whether Kenya was benefiting from the COMESA deal. This is demonstrated by the latest data trends of the export markets' performance in Figure 3.1.

Figure 3.1: Kenya's Trade Performance in the COMESA
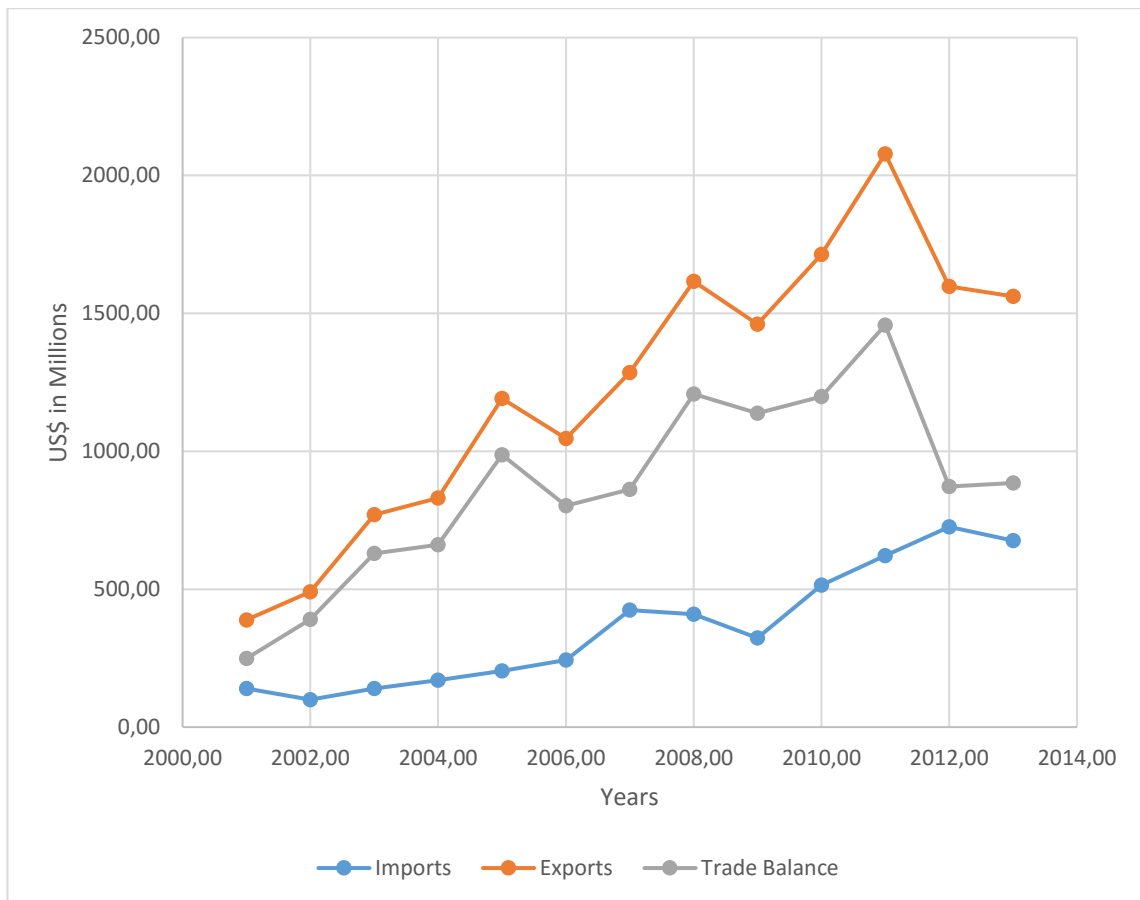
Source: UN Comtrade Statistics (2016)

Figure 3.1 explains how Kenya has progressed in its trading agreement with the COMESA since the year 2001 up to 2013. Kenyan exports to the COMESA stood at US$ 388.7 million in 2001, whereas imports stood at US$139.9 million; thereby resulting in a trade surplus of 248.9 million dollars (UN Comtrade 2016). It shows good progress, although not systematic as it fluctuated frequently, as shown in the trends.

From a steady rise up to 2005, Kenya's trade balance dropped to US$ 803 million in 2006. Kenya's trade balance again showed a severe drop from US$1207.3 million in 2008 to US$1137.5 million in 2009. This was also repeated in 2011 and 2012 when the trade balance fell from US$1457.5 million to US$ 872.0 million.

This data agrees with the findings of Stromquist and Monkman (2014), who argued that with trade liberalisation, there are improvements in the trade balance – due to increased exports for the countries involved in the regional trade agreement. This is evident as Kenya registered a trade surplus as a result of its trade with COMESA. The systematic progress in exports, imports and the trade balance is illustrated in Figure 3.1.

The graph and the trends shown in Figure 3.1 confirm that the COMESA trade-facilitation initiatives would be beneficial not only to the government of Kenya, but also to the entire regional business community (Kayizzi-Mugerwa, Anyanwu & Conceição 2014). Among the key benefits from this regional bloc is the increased competitiveness in markets, countrywide and international, due to the decreased delays in the clearance of goods heading to the international market within the regional bloc. The decreased costs are due to the withdrawal of taxes among members within the trade blocs (Kayizzi-Mugerwa, Anyanwu & Conceição 2014).

Figure 3.1 also confirms that trade facilitation has made a significant contribution to economic development, mainly through the improved trade and foreign investments shown by the growing trade balance. This study ascribes the steady growth in exports between Kenya and other COMESA countries to the customs departments that play a key role in meeting government's revenue collection goals. It ensures effective control and compliance with the State legislation, thereby assuring the protection and security of the State (Balistreri, Tarr & Yonezawa 2014). This trend in Kenya's trade performance needs to be monitored carefully, in order to ensure that there is a steady growth throughout

the years, to ensure that Kenya gains optimally from the trade liberalisation endeavours and regional trade agreement with COMESA.

3.2.1 Kenya's major export markets in COMESA

Kenya's export destination is of great significance to this study as it illustrates some effects of trade liberalisation through export, import and trade balance indicators as shown in Table 3.1.

Table 3.1: Kenya's top export market in COMESA (US$ Millions)

Importers	2006	2007	2008	2009	2010	2011	2012	2013
Uganda	387.0	498.9	614.7	598.3	657.3	872.6	797.9	758.9
Congo DRC	107.0	123.5	143.6	146.5	161.4	200.0	203.0	205.5
Egypt	137.1	135.4	224.7	153.8	228.5	267.1	248.1	197.3
Rwanda	66.1	86.2	130.4	123.4	132.9	155.0	191.1	156.8
Sudan	140.5	172.3	204.6	165.1	237.5	254.1	71.2	72.7
Zambia	56.3	74.1	79.9	62.5	59.1	70.1	69.2	68.4
Burundi	30.3	36.0	50.5	59.5	68.8	67.4	62.8	65.0
Ethiopia	50.9	51.0	63.9	55.9	55.3	55.0	53.7	48.8
Malawi	26.6	31.4	58.2	40.7	53.8	66.4	54.7	39.5
Zimbabwe	1.7	3.3	2.6	4.6	9.4	17.9	18.3	20.5
Djibouti	11.8	33.9	11.7	9.2	11.7	12.1	13.9	14.1

Source: UN Comtrade Statistics (2016)

The bulk of Kenya's exports are to Uganda, followed by the Democratic Republic of Congo, Egypt, Rwanda and Sudan (North South) as illustrated in Table 3.1. This study has shown that Uganda is the major export market for Kenya in COMESA during 2013. Kenya exported goods worth US$758.9 million to Uganda by 2013 (UN Comtrade 2013). In 2006 and 2007, Kenya exported US$387 million and US$498.9 million to Uganda, respectively.

This shows that Kenya and Uganda have stable trade relations, evidenced by the steady growth between 2006 and 2011. This trend was interrupted by the

drop in 2012 and 2013. This study is significant in that it addresses the causes of poor performance in order to ensure that Kenya derives optimal benefits from the COMESA protocol.

Kenya's largest exports were in 2011 when it registered exports to the value of US$872.6 million to Uganda. Although fluctuating, this is a positive trend. The trade relations between Kenya and Uganda are evidently much stronger than that of the other countries in COMESA (UN Comtrade 2016).

It is also important to note that the major exports from Kenya to Uganda are salt, sulphur, earth, stone, plaster, lime and cement valued at US$84.6 million. This is followed by mineral fuels and oils worth US$66.2 million, iron and steel priced at US$55.4 million, plastics and articles valued US$49.5 million, beverages, spirits and vinegar, valued at US$38.5 million and motor vehicles US$33.9 million. Other goods exported from Kenya to Uganda are paper and paper board, articles of pulp, pharmaceutical products, wood and wooden articles, and wood charcoal among other products.

The second major export market for Kenya's produce in the COMESA region in 2013 was the Democratic republic of Congo. The Democratic republic of Congo received goods exported by Kenya worth US$205.5 million in 2013 (UN Comtrade 2016). Among the goods exported by Kenya to the Democratic Republic of Congo, are paper and paperboard, articles of pulp, paper and board valued at US$0.3 million, then glass and glassware worth US$0.3 million. Other products include meat and edible meat offal valued at US$0.1 million along with bird skins, feathers, artificial flowers and human hair valued at US$0.1 million.

Kenya's third largest export destination within COMESA is Egypt with an export value of US$197.3 million in 2013 (UN Comtrade 2016). The products mostly exported from Kenya to Egypt include coffee, tea and spices worth US$176.5 million. This is followed by tobacco and manufactured tobacco products worth

US$12.9 million, vegetable textile fibres, paper yarn and woven fabric worth US$2.3 million, plastics and articles worth US$1.6 million, miscellaneous edible preparations worth US$1.1 million along with live animals valued at US$1.0 million.

This study also noted that besides Uganda, the Democratic Republic of Congo and Egypt, other notable Kenyan export destinations listed in descending order are Rwanda, Sudan, Zambia, Burundi, Ethiopia, Malawi, Zimbabwe and Djibouti. The question arises why Uganda is Kenya's top export destination and why the trends in trading are positively increasing. It is important to note that Uganda is a land-locked country and Kenya is its nearest neighbour, besides Tanzania with access to the sea (EAC 2014). Ugandan traders have benefited from trade liberalisation and regionalism through their ability to get their goods through Kenya at preferential rates as a result of the free-trade agreement in COMESA and the EAC (Balistreri, Tarr & Yonezawa 2014).

The access to the Port of Mombasa made the cost of production much lower, and increased the comparative advantage of buying finished goods in Kenya than producing them in Uganda (Venables 2003). This trend can also be justified by Kenya's developed manufacturing industry, rather than Uganda, which is why many citizens prefer buying goods from Kenya, since these goods are much cheaper in Kenya than in Uganda. The free movement of persons under the COMESA and EAC privileges, the citizens of Uganda has made it easy to access low priced goods from Kenya (COMESA 2014).

3.2.2 Kenya's major import markets in COMESA

Table 3.2 shows the sources of Kenya's imports from the COMESA as a result of trade liberalisation.

Table 3.2: Kenya's sources of imports in COMESA (US$ millions)

Exporters	2006	2007	2008	2009	2010	2011	2012	2013
Egypt	114.0	165.9	157.4	124.3	232.1	204.8	259.4	297.3
Uganda	14.0	88.8	75.4	57.3	116.3	116.8	181.3	186.8
Swaziland	53.3	49.0	72.3	65.3	49.3	56.3	60.2	63.1
Zambia	19.9	30.1	27.0	20.4	31.0	62.1	50.8	33.6
Mauritius	5.7	19.0	22.2	16.6	36.4	28.0	24.5	23.4
Sudan	1.2	0.2	2.4	0.2	2.1	8.9	12.4	15.8
Malawi	3.6	5.7	1.1	1.6	6.7	70.1	18.7	12.1
Rwanda	2.9	1.3	0.4	3.1	5.4	4.7	9.7	11.7
Zimbabwe	2.8	6.5	2.3	7.8	7.2	18.6	17.3	9.5
Madagascar	0.9	0.9	0.4	6.2	6.0	10.4	9.6	9.2

Source: UN Comtrade Statistics (2016)

The data in Table 3.2 show that the bulk of the imports that Kenya obtains from COMESA are from countries like Egypt, which is the largest exporter of goods to Kenya. This is followed by Uganda, Swaziland, Zambia, Mauritius, Sudan, Malawi, DRC, Zimbabwe, Rwanda and Madagascar, among the top-ten countries who supply their goods to the Kenyan market (UN Comtrade Statistics 2016).

These results indicate that imports from Egypt to Kenya are frequently fluctuating from US$114 million dollars in 2006 to US$297.3 million dollars in 2013. This is an indicator that significant volumes of trade exist between Kenya and Egypt (UN Comtrade 2016). The composition of the imported items includes sugar and sugar confectionery worth US$51.5 million; manufactured articles valued at US$46 million; soaps, lubricants, waxes, candles, and modelling pastes US$45.9 million; paper and paperboard, articles of pulp, paper and board, plastics and iron and steel, electrical, electronic equipment, cereals, flour, starch, milk preparation products, mineral fuels, oils, distillation products, ceramic products, as well as rubber. The leading commodity imported by Kenya is sugars and sugar confectionery to the value of US$51.46 million.

Uganda is the second largest source of imports for Kenya. This is evident by the US$186.8 million import growth value in the year 2013, which rose from US$14.0 million import in 2006. The major imports from Uganda include commodities, such as: tobacco and manufactured tobacco substitutes valued at US$71.8 million, it being the highest. This is followed by oil seed, oleagic fruits, grain, seed, and fruit US$20.9 million; dairy products, eggs, honey, edible animal products valued at US$ 20.5 million; vegetables, and certain roots and tubers valued at US$15 million among other products such as coffee, tea, and spices worth US$8.7 million; cereals worth US$8.4 million; wood and wooden articles, wood charcoal, waste from the food industry, animal fodder, animal and vegetable fats and oils, cleavage products, iron and steel among other products (UN Comtrade 2016).

Swaziland makes the third largest source of imports for Kenya. Kenya's imports from Swaziland were US$63.1 million dollars in 2013. The bulk of Kenya's imports from Swaziland comprise essential oils, perfumes, cosmetics and toiletries US$56.6 million; miscellaneous chemical products to the value of US$4.5 million; miscellaneous manufactured articles valued at US$1.3 million, among other products.

Amongst the other COMESA countries that exported goods to Kenya in 2013, are Zambia, Mauritius, Sudan, Malawi, Rwanda, Zimbabwe, and Madagascar. The values of their exports to Kenya are arranged in descending order. The values of imports from all these individual countries that export to Kenya show an ascending trend in value (Venables 2003). Therefore, the effectiveness and competitiveness of the customs procedures have a significant effect on the economic competitiveness of countries and the growth of international trade in the region.

3.2.3 Kenya's Trade Balance in COMESA

It is important to note that Kenya's trade performance continued to fluctuate, which demonstrates the unstable trade performance between Kenya and the aggregate COMESA partner states as shown in Table 3.3 (COMESA 2014).

Table 3.3: Kenya's Trade Balance with COMESA in (US$ Millions)

Partners	2006	2007	2008	2009	2010	2011	2012	2013
Uganda	373.0	410.0	539.3	541.0	541.0	755.8	616.6	572.1
Congo DRC	94.2	100.8	129.3	135.1	144.6	171.6	186.6	199.0
Egypt	23.2	-30.6	67.3	29.5	-3.6	62.3	-11.3	-100.0
Rwanda	63.2	84.9	130.0	120.3	127.5	150.3	181.4	130.3
Sudan	139.3	172.1	202.2	165.0	235.4	245.3	58.8	56.9
Zambia	36.4	44.0	52.9	42.1	28.1	8.1	18.4	34.8
Burundi	25.6	33.8	49.4	58.3	67.0	62.0	59.1	64.4
Ethiopia	49.2	48.9	61.0	52.8	54.4	54.2	50.9	45.6
Malawi	23.0	25.7	57.2	39.1	47.1	-3.8	36.0	27.4
Zimbabwe	-1.1	-3.2	0.3	-3.2	2.2	-0.7	1	11.0
Djibouti	11.8	7.2	-10.3	8.6	11.6	12.1	13.3	14.1
Mauritius	1.2	-9.5	-10.1	-1.7	-17.7	-12.8	-12.5	-12.3
Comoros	5.3	3.2	5.7	5.7	4.5	8.6	9.5	10.2
Seychelles	-0.6	1.1	-2.1	-0.8	2.1	-2.7	0.5	0.9
Madagascar	6.4	8.4	5.7	2.9	-1.7	-2.6	-3.8	-5.7
Eritrea	7.5	4.4	1.2	7.0	4.9	4.2	3.9	3.2
Libya	-1.4	9.1	0.4	1.0	0.2	0.4	0.7	1.2
Swaziland	-53.2	-48.9	-72.3	-65.3	-49.1	-54.6	-58.6	-63.0

Source: Author's Own Calculations and UN Comtrade Statistics (2016)

In 2001 as illustrated in table 3.3, Kenya registered a trade balance of US$248.8 million, which was followed by a positive growth of US$390.5 million in 2002, US$630.1 million in 2003, US$660.8 million in 2004 and US$987.4 million in 2005. Unfortunately this was followed by a drop in the balance of trade to US$803.1 million in 2006.

Another drop in trade was realised in 2009, when the country had a trade balance of US$1207.3 million in 2008; but this later fell to US$1137.5 million in 2009. The same happened in 2011, when Kenya's trade balance dropped from US$1457.5 million in 2011 to US$ 885.48 million in 2013. This fluctuation demonstrates inconsistency in trade performance, which may have led the nation to experience considerable losses, together with reduced welfare for its citizens (Lester, Mercurio & Bartels 2015).

Closer scrutiny of Kenya's trade dynamics shows that the trade balance dynamics evolved with most major trading partners in COMESA. This gives a better picture of Kenya's regional trade agreements and the implications thereof (Lester *et al.* 2015). Among the predominant traders with Kenya from the COMESA region include countries like Uganda, Sudan, and the Democratic republic of Congo, Rwanda, Egypt, Burundi, Ethiopia and Zambia.

This study observed the trends in the balance-of-trade data from table 3.3. These trends show that Kenya is gaining from regional integration and the trade-liberalisation policies. This is evidenced by the growth in the trade balance surplus of US$248.8 million in 2001 to US$ 885.5 million in 2013 (UN Comtrade 2016). The frequent fluctuations in the trade balance present a challenge to the Kenyan government to ensure positive and systematic growth in its economy, in order to increase the gains from regional trade arrangements.

3.3   Kenya's trade performance in EAC

The EAC is one of the major initiatives of the East African countries, comprising Kenya, Uganda, Tanzania, South Sudan, Burundi and Rwanda. The EAC was created to eliminate the trade barriers that had previously hindered trade liberalisation and free trade among their members (EAC 2014). Against this background, it becomes necessary for Kenya, and the other member states, to determine who its major trading partners are. Figure 3.2 shows Kenya's trading performance in the EAC from 2001 to 2013.

Figure 3.2: Kenya's trade performance in the EAC
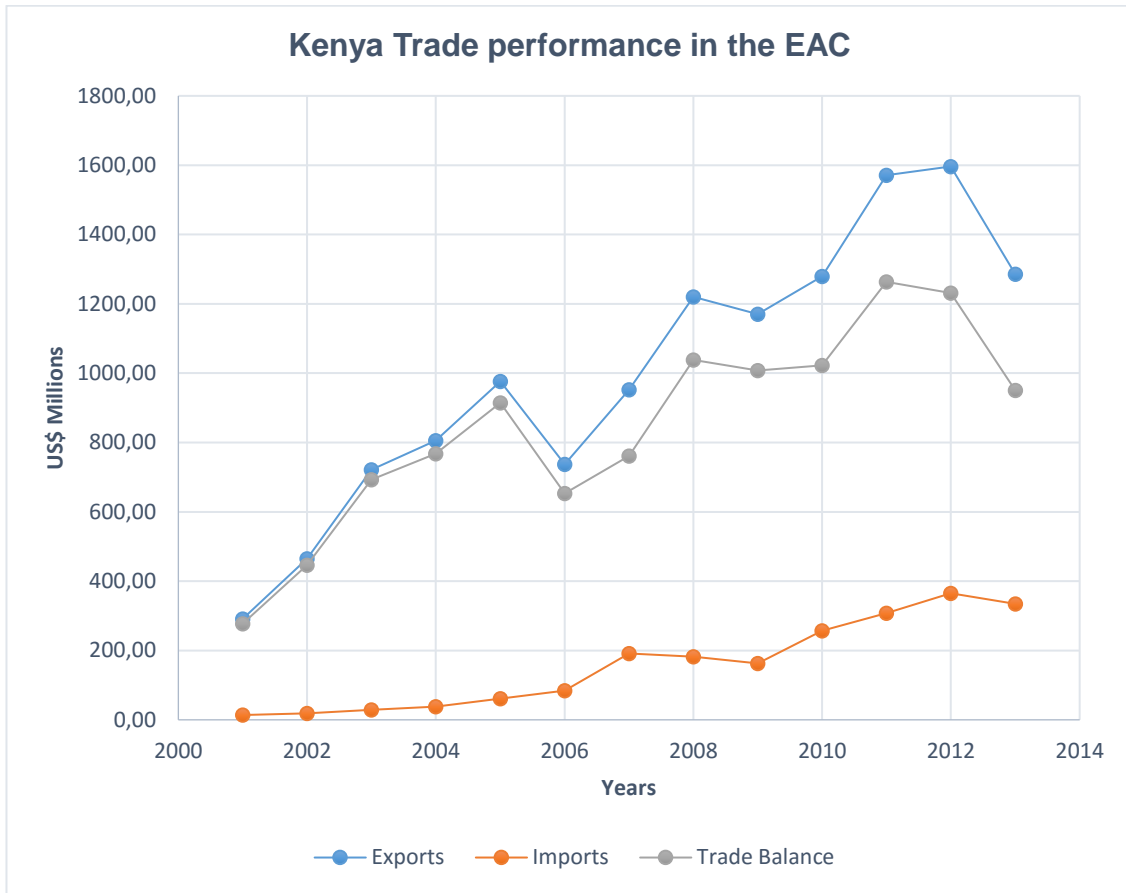
Source: UN Comtrade Statistics (2016)

The growth and development of the economic community was believed to be the most pragmatic response to the administrative and commercial needs, along with the rich cultural heritage the people in EAC share (Venables 2003). The data collected from the United Nations Comtrade statistics in 2016 in figure 3.2 indicates that Kenya registered an impressive export performance of US$291.4 million to the EAC in 2001. It is also important to note that there has generally been a steady growth in exports, until a decrease was realised in 2005 and 2006, 2008 and 2009, and between 2012 and 2013. In 2006, the export figures dropped from US$976.2 million in 2005 to US$737.2 million in 2006. In 2008 Kenya's exports dropped from US$1220.5 million to US$1170.5 million in 2009; and there was a drop from US$1596.4 million to US$1285.4 million. This was a sign of inconsistency in trade development in the East

African region, which should be addressed, in order to increase the benefits of regional integration (EAC 2015).

The trade balance indicates signs of improving trade conditions. The trade balance between Kenya and its EAC partners grew from US$277.53 million in 2001 to US$950.9 million in 2016. Topalova and Khandelwal (2011) argued that for any country to gain from regional trade, it has to invest in value-addition, hence improving the quality of its exports from primary products, which fetch lower prices, to finished goods, which fetch high prices. This aids in improving the balance-of-payment conditions.

3.3.1 Kenya's top export markets in EAC

Studies of Baldwin and Venables (1995) indicate that trade liberalisation provides additional market access to member states, either in the form of a free-trade agreement or a customs-union agreement. This leaves questions on whether or not Kenya has been able to penetrate new markets in the EAC. Kenya's export destinations are illustrated in Table 3.4.

Table 3.4: Kenya's export destination in the EAC (US$ Million)

Importers	2006	2007	2008	2009	2010	2011	2012	2013
Uganda	387.0	498.9	614.7	598.3	657.3	872.6	797.9	758.9
Tanzania	253.8	331.7	424.9	389.3	420.2	476.1	544.6	470.2
Rwanda	66.1	86.2	130.4	123.4	132.9	155.0	191.1	156.8
Burundi	30.3	36.0	50.6	59.5	68.9	67.4	62.8	65.0

Source: Author's own calculations based on UN Comtrade Statistics (2016)

Table 3.4 shows the developments in Kenyan exports from 2006 to 2014. Kenya's export destinations in EAC are Uganda, Tanzania, Rwanda and Burundi, as illustrated in Table 3.4.

Kenya and Uganda have a symbiotic relationship in the sharing of resources because Uganda is a land-locked country. Uganda and Kenya were first linked

together during the construction of the Kenya-Uganda railway in the 1890s (Gunston 2004). This made it easier for Kenya and Uganda to trade more frequently land obviously increased hence trade between Kenya and Uganda – contrary to other East African Community countries – like Tanzania, Burundi and Rwanda (Crawford & Fiorentino 2005).

Table 3.4 indicates that Uganda is Kenya's largest export destination; the value of the trading in 2013 was US$758.9 million (UN Comtrade Statistics 2016). The exports from Kenya to Uganda are salt, sulphur, earth, stone, plaster, lime and cement valued at US$84.6 million per annum. This is followed by mineral fuels, oil, and distillation products, US$66.2 million; iron and steel priced at US$ 55.4 million, plastics and plastic articles valued at US$49.5 million; beverages, spirits and vinegar US$38.5 million and vehicles, other than railways and tramways worth US$ 33.9 million. Other goods exported from Kenya to Uganda are paper, paper-board, and articles of pulp, and pharmaceutical products, wood, articles of wood and wood charcoal among other products.

Tanzania is the second major export destination after Uganda in the EAC (EAC 2014). Kenya was able to export goods valued at US$470.2 million to the Republic of Tanzania. It is important also to note that Kenya has several borders with Tanzanian ports. The ports of entry include Isebania (Sirari), Sand River Gate (Bologonja),Loitoktok (Tarakea), Taveta (Holili)and Lungalunga (Horohoro) . The airport entry points include Dar es Salaam and Kilimanjaro airports. Other borders include sea ports at the Indian Ocean and Lake Victoria (Jedwab, Kerby & Moradi 2015).

These many entry points account for Tanzania being the second largest export destination after Uganda. The EAC protocol on free movement of persons with goods and services yields a contributing effect to the increased trade between Kenya and Tanzania (Rondinelli 2013). The goods traded include animal and vegetable fats and oils, cleavage products, valued at US$52.8 million. This is the largest export commodity that Kenya supplies to the Tanzanian market.

This is followed by soap, lubricants, waxes, candles and modelling pastes totalling US$31.9 million; salt, sulphur, earth, stone, plaster, lime and cement valued at US$25.4 million; also aluminium and aluminium products, plastics and articles thereof, sugar and sugar confectionery, pharmaceutical products, electrical, electronic equipment, iron and steel, and vehicles other than railways and tramways (UN Comtrade Statistics 2016).

Finally, Rwanda and Burundi are the last export destinations for Kenyan goods. The quantity of exports supplied to Rwanda from Kenya amounts to US$156.8 million; whereas in the case of Burundi, the exports are valued at US$65.0 million. This may be attributed to the distance between the two borders by air or land. Kenya's exports to Rwanda are goods, such as Iron and steel valued at US$19.1 million, which comprise the largest exports to Rwanda. Other items are plastics and articles worth US$ 10.2 million, paper and paperboard, articles of pulp, paper and board valued at US$ 8.5 million. The other exports include animal, vegetable fats and oils, cleavage products, salt, sulphur, earth, stone, plaster, lime and cement, tobacco and manufactured tobacco substitutes.

Burundi has a total export value of US$65.0 million, which consists of items like plastics and articles with an export value of US$10.2 million dollars, followed by iron and steel valued at US$10.1 million. The other exports include commodities like fertilizers, articles of iron or steel, mineral fuels, oils and distillation products (EAC 2015).

3.3.2 Kenya's top import sources from EAC

The trade, according to the World Bank (2016) and the United Nations Conference on trade and Development (UNCTAD 2016), reveals that Uganda is one of Kenya's largest trading partners on the continent. This is evident from Uganda being Kenya's largest exporter and importer in the EAC (EAC 2015).

The second largest exporter to Kenya is Tanzania, then Rwanda, with Burundi being the smallest exporter of goods to the Kenyan market among EAC

partners. Table 3.5 shows the trend of Kenyan imports from the four EAC trade partners.

Table 3.5: Kenya's Import Sources in the EAC in (US$)

Exporters	2006	2007	2008	2009	2010	2011	2012	2013
Uganda	14.0	88.8	75.4	57.3	116.3	116.8	181.3	186.8
Tanzania	62.8	99.2	105.5	101.1	133.0	180.8	170.4	135.5
Rwanda	2.9	1.3	0.4	3.1	5.4	4.7	9.7	11.7
Burundi	4.7	2.3	1.1	1.2	1.8	5.4	3.7	0.6

Source: Author's own calculations based on UN Comtrade Statistics (2016)

The results in Table 3.5 indicate that Kenya is the largest importer of Ugandan products in the East African Community. The Ugandan exports to Kenya were worth US$186.8 million in 2013, followed by Tanzania with exports US$135.5 million, and Rwanda with US$11.7 million in 2013. Burundi was the smallest exporter to Kenya with US$0.6 million exports to the Kenyan market during the same period (UN Comtrade Statistics 2016).

The goods supplied by Uganda to the Kenyan market include products like tobacco and manufactured tobacco substitutes worth US$71.8 million being the highest. This is followed by oil seed, oleagic fruits, grain, seed, fruit valued at US$20.9 million, dairy products, eggs, honey, edible animal products worth US$20.5 million, edible vegetables and certain roots and tubers, coffee, tea, and spices worth US$15 million per annum. Further imports from Uganda are products such as, coffee, tea, and spices, cereals, wood and wooden articles, wood charcoal, waste from the food industry, animal fodder, animal, vegetable fats and oils, Iron and steel, paper and paperboard, articles of pulp, paper and board.

Tanzania supplies Kenya with paper and paperboard, articles of pulp, paper and board worth US$23.8 million, mineral fuels, oils, distillation products valued at US$16.1 million, which are the highest imports in Kenya from Tanzania.

These are followed by textile articles, worn clothing worth US$15.3 million, and cereals worth US$8.7 million (EAC 2015). Other goods and products include edible vegetables roots and tubers, articles of iron or steel, residues, waste from the food industry, animal fodder, beverages, spirits and vinegar, cotton, tobacco and manufactured tobacco substitutes, sugars and sugar confectionery (UN Comtrade Statistics 2016).

Rwanda also supplies the Kenyan market with goods like raw hides, skins and leather with an import value of US$9.4 million, and coffee, tea and spices valued at US$2.1 million among other commodities (UN Comtrade Statistics 2016). Burundi is the smallest exporter of its products within the EAC (EAC 2015). Burundi supplies Kenya with coffee, tea, spices worth US$0.4 million and raw hides, skins and leather worth US$0.2 million, among other products (UN Comtrade Statistics 2016).

The findings presented in the discussion above agree with the findings presented by De Melo and Tsikata (2015) that highlight the fact that the EAC trade facilitation instruments like the EAC customs union certificates, single entry visa in most EAC countries and regional bond guarantees have served well in enhancing the growth of imports and trade within the region though not steady. This is demonstrated by unsteadily growing trend in imports by Kenya from the other EAC member states (De Melo & Tsikata 2015).

3.3.3 Kenya's trade balance in East African Community and the World

Kenya's trade performance in the EAC appeared to be impressive but its trade performance with the rest of the world has always been low and consistently negative (De Melo & Tsikata 2015). This indicates that Kenya has been able to have some trade gains in the EAC, although its performance compared to the rest of the world remains very low as indicated in Table 3.6.

Table 3.6: Kenya's Balance of Trade in the EAC in US$ Million

Partners	2006	2007	2008	2009	2010	2011	2012	2013
World	-3731.3	-4908.5	-6126.9	-5738.6	-6923.8	-9174.2	-9868.1	-10857.5
EAC(∑)	652.8	761.2	1038.2	1007.7	1022.7	1263.5	1231.4	950.9
Uganda	373.0	410.0	539.3	541.0	541.0	755.8	616.6	472.0
Tanzania	191.0	232.5	319.4	288.2	287.2	295.3	374.2	288.7
Rwanda	63.2	84.9	130.0	120.3	127.5	150.3	181.4	130.3
Burundi	25.6	33.7	49.4	58.3	67.0	62.0	59.1	59.8

Source: Author's own calculations based on UN Comtrade Statistics (2016)

These results indicate that Kenya has had a negative balance of trade indicator for most of the past ten years, as shown in table 3.6 (UN COMTRADE Statistics 2016). These findings also indicate that Kenya and the EAC have had a positive trade balance from 2006 until 2013. This implies that their exports to the rest of the world may have been or are of a lower quality. De Melo and Tsikata (2015) posited that the EAC economy has exports mostly comprising of agricultural and semi-processed agricultural goods. These goods are known to have a low revenue-generation capacity, compared to finished and industrial products produced by the rest of the world (Tumwebaze & Ijjo 2015).

Table 3.6 also reveals that Kenya and its EAC partner states have had a fluctuating trade balance, which could mean that their production has been inconsistent – making it difficult for them to earn stable profits that would steer their countries towards continuous growth and development (EAC 2015).

These data indicators in Table 3.6 confirm the recommendations by Aniche (2015) that for developing countries, like Kenya to improve their terms of trade and balance-of-payment, they should work on improving the quality and quantity of exports to the rest of the world. Aniche (2015) proposed the strengthening of trade-facilitation instruments including trade policies, the regional standards of quality, promotion of the export-processing zones and centres by adding more value to them. Developing states like Kenya, should

work on the removal of the non-trade barriers that have reduced trade between their borders and the rest of the world (Calvo-Pardo, Freund & Ornelas 2009). Despite these findings, this study did not proceed to the empirical analysis of the influence of trade liberalisation on Kenya resulting from the EAC trade pact because of the availability of existent research.

3.4 Kenya's Trade Performance in EU (27)

The EU has had a long-standing partnership with Kenya, which has gone beyond the Lomé convention and the Cotonou agreement. The European Union has been a vital destination for Kenyan exports, since independence in 1963. Kenya has also been able to import finished goods and technology mostly used in the Kenyan production industries (Calvo-Pardo, Freund & Ornelas 2009).

Those parties with the largest contribution to economic growth, development and trade promotion in Kenya are from the 27 member states of the European Union comprise (Muhammad 2009). The EU has a long standing strategic engagement with Kenya primarily through trade, security and development, along with humanitarian and peace-building aspects of national development (Fontagné, Laborde & Mitaritonna 2011). Evidence presented from UNCTAD (2015) points to the fact that the EU is the largest trade partner and largest consumer of Kenya's exported goods as shown in figure 3.3.

On the 14 October 2014, Kenya welcomed the renewal of Kenya and EPA's deal that would see Kenya continue to export most of its products to Europe (Mutambo 2014). This becomes important to the study to assess the Kenya and EU trade performance, which form part of this study's research aims and objectives.

Figure 3.3: Kenya's Trade with the EU and the World (US$ Million)
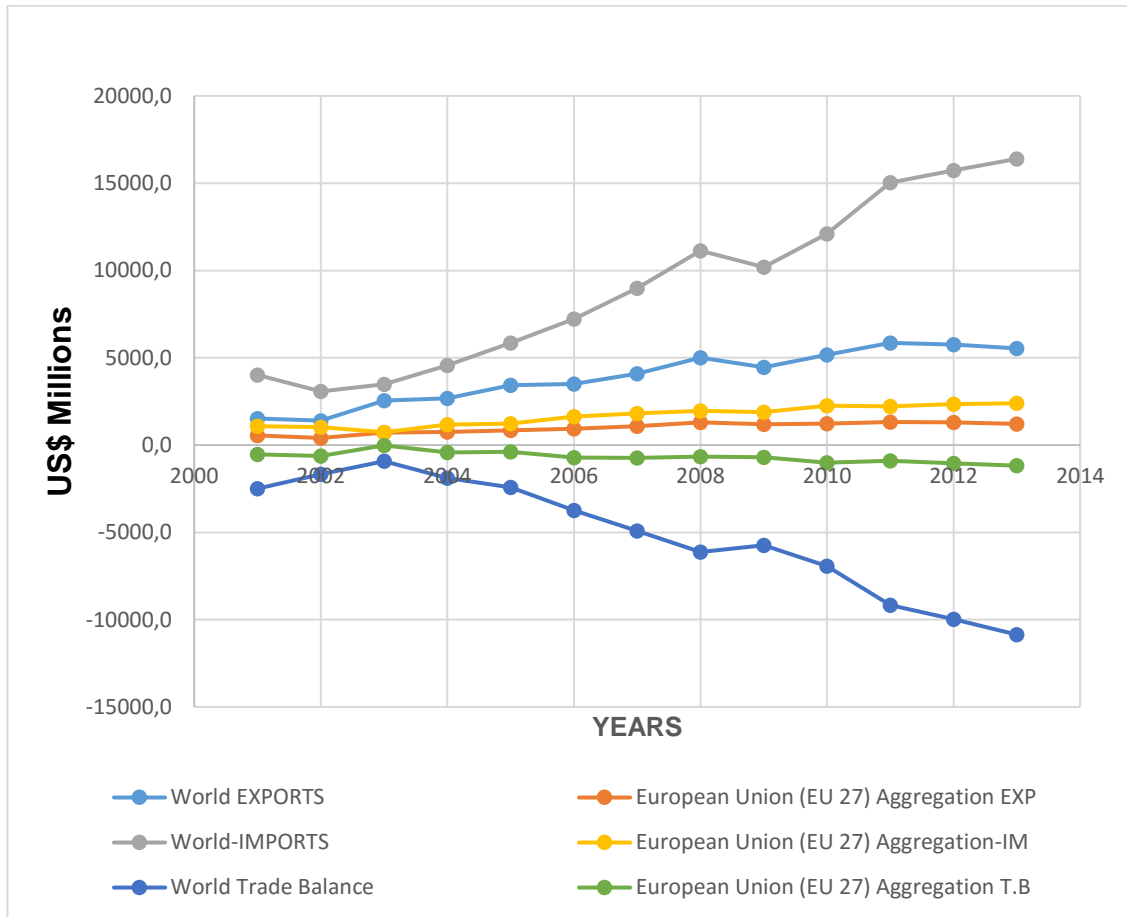
Figure 3.4 shows how Kenya's trade with the 27 member European Union has evolved over the past 13 years from 2001 to 2013. Kenya exported goods worth US$1,214.6 million in 2013. This is evident from a steady growth trend of US$1,081.8million in 2001(Aniche 2015; UN Comtrade Statistics 2016).

Kenyan imports from the EU have steadily grown from US$ 1081.9 million in 2001 to US$2395.9 million in 2013 (UN Comtrade Statistics 2016). This only registered a slight drop in 2002, but then continued growing steadily. There has been a consistent growth in volume of EU exports to Kenya. This means that since 2001, the exports have continuously risen, indicating that the European contributions are the bigger beneficiary in this trade agreement as evidenced

by the Kenyan import growth trends from US$1081.8 million in 2001 to US$2394.2 million in 2013 (UN Comtrade Statistics 2016).

Kenya continuously registered a balance-of-payment deficit in its trade between itself the EU and the World (UN Comtrade Statistics 2016). This can largely be attributed to the type of exports that Kenya supplies to the EU market. Kenya has been supplying the EU with primary products that are mostly affected by price fluctuations, whereas the European Union has been supplying the market with finished industrial products that fetch high prices in the international market. The market trends indicate that the trade deficit is widening, as the years go by, and this is evident by the US$524.2 million in 2001, which further decreased to –US$727.7 million in 2007 and a further drop to –US$1181.2 million in 2013. This indicates that the EU was gaining much from these trade agreements (UN Comtrade Statistics 2016).

It is important to note that Kenya has benefited from the EU initiatives; where it funded important institutions and promoting trade and economic development, such as agriculture, the justice system, energy and infrastructure, promotion of food security and clean water, trade and investment, and finally, private sector growth and development (Matthews 2010). This is evident from the many European companies that have heavily invested in Kenya, thereby increasing job creation and government revenues through taxation.

The European investment bank has provided government institutions with long-term developmental loans at a generous repayment terms, mainly supporting infrastructural development. This was further enhanced when the European Union promised to spend 435 million Euros, working with the Kenyan government on the improvement of key developmental aspects, like security, agriculture and infrastructure over the next 20 years (Bienen 2015).

3.4.1 Kenya's top ten export markets to EU (27)

Kenya by tradition has had Europe as its main export destination, as a result of the ties with Britain, which is a member of the EU (Hornsby 2013). This is where Kenya and some of its EAC counterparts, who are also members of the commonwealth, have sold most of their exports. Most Kenyan goods have been exported to the United Kingdom, Netherlands, Germany, Belgium, France, Italy, Sweden, Spain, Poland, Ireland and Finland. The United Kingdom besides being the largest export market for Kenyan commodities, is also of significance to Kenya, as its former colonial master and a member of the commonwealth nations (Bienen 2015). Table 3.7 indicates the Kenyan top export destinations among the European Union's 27 member states.

Table 3.7: Kenya's top export markets to the EU (27)(US$ Millions)

Importers	2006	2007	2008	2009	2010	2011	2012	2013
United Kingdom	380.4	427.7	550.6	498.1	507.2	536.0	490.4	436.0
Netherlands	277.2	325.7	380.1	340.7	338.9	377.2	377.9	378.1
Germany	65.1	88.4	89.3	95.1	97.3	86.9	94.1	95.6
Belgium	30.2	38.6	40.9	43.9	52.5	51.2	68.8	71.9
France	64.0	63.2	72.1	56.1	65.5	66.1	65.0	63.8
Italy	28.0	38.4	43.4	31.5	41.1	75.7	70.1	52.6
Sweden	15.3	23.6	22.9	32.3	34.6	32.7	30.2	28.9
Spain	17.1	24.3	31.3	19.5	25.7	25.2	24.1	23.4
Poland	6.6	8.0	12.6	12.5	14.8	17.5	17.9	18.9
Ireland	11.6	12.0	11.9	12.4	13.4	11.6	12.8	13.7
Finland	12.3	13.3	17.9	21.4	22.8	14.1	13.2	12.8

Source: UN Comtrade Statistics (2016)

The United Kingdom has dominated the EU, as the best export market for Kenyan goods. This is evident in Table 3.7, which confirms that Kenyan exports to the U.K. constitute 35.9 per cent of all exports to the EU (UN Comtrade 2016). The UN Comtrade (2016) also showed that from 2013 Kenya was exporting US$436.0 million of goods to the United Kingdom. This is after a drop

in export receipts from a peak of US$536.0 million in 2011 to US$490.4 million in 2012 and further to US$ 436.0 million in 2013. This trend in the export market has been growing steadily – indicating that the United Kingdom is gaining from this trade venture.

Among the commodities Kenya has been trading are: Coffee, tea and spices worth US$162.9 million; the highest export to the U.K. This was followed by edible vegetables and certain roots and tubers valued at US$131.9 million; live trees, plants, bulbs, roots, and cut flowers worth US$93.4 million; vegetable plaiting materials, vegetable products valued at US$7.8 million. The other goods exported to the U.K. from Kenya include copper, printed books, newspapers, pictures, toys, games, sporting requisites vegetables, fruit, nuts, food preparations, nuts, peel of citrus fruit, melons, tobacco and manufactured tobacco products, cereals, flour, starch, milk preparations and dairy products (UN Comtrade 2016).

The Netherlands is the second best destination for Kenyan exports (UNCTAD 2015). This is evident from the consistent growth in Kenyan exports to the Netherlands, from US$277.2 million in 2006 to US$325.7 million in 2007, and US$380.1 million in 2008; growing steadily to US$378.1 million in 2013. Among the goods mostly traded with the Netherlands are live trees, plants, bulbs, roots, cut flowers worth US$286.3 million. This is the highest export from Kenya to the Netherlands, followed by edible vegetables and certain roots and tubers, valued at US$26.9 million; fruit and nuts valued at US$18.8 million.

The other goods and products that Kenya exports to the Netherlands include fish, crustaceans, molluscs, aquatic invertebrates, coffee, tea and spices, salt, sulphur, earth, stone, plaster, lime and cement, edible fruit, nuts, peel of citrus, melons, vegetable plaiting materials, vegetable products, tobacco and manufactured tobacco products , oil seed, grain, seed, machinery, nuclear reactors, boilers.

Germany is the third largest export destination of Kenya's products to the European Union. Kenya's exports supplied to Germany have had a steady growth from 2006 to 2013. This can partly be contributed to the bilateral ties from the EU states, benefitting Kenya and other ACP countries exporting goods to the EU with fewer or no restrictions (Matthews 2010).

The bulk of Kenya's exports to Germany comprise the following products: Coffee, tea, mate and spices worth US$43.1 million. The other products include live trees, plants, bulbs, roots, cut flowers valued at US$29.1 million. Other goods include vegetables, fruit, nuts, and certain roots and tubers, tobacco and manufactured tobacco products, fish, crustaceans, molluscs, aquatic invertebrates, vegetable textile fibres, paper yarn, woven fabric, nuts, peel of citrus fruit, melons, stone, plaster, cement, asbestos, mica, oil seed, grain, seed, fruit, optical photographic products, technical and medical apparatus.

Besides the United Kingdom, the Netherlands and Germany, other important export market destinations include Belgium, France, Italy, Sweden, Spain, Poland, Ireland, and Finland. The Kenyan export to these countries were valued at US$71.9 million (Belgium), US$63.8 million (France), US$52.6 million Italy), US$28.9 million (Sweden), US$23.404 million (Spain), US$18.922 million (Polland), US$13.736 million (Ireland) and finally Finland US$12.8 million.

3.4.2 Kenya's major import sources from the European Union (27)

Kenya has over the years enjoyed a cordial and long-standing relationship and trade associations with the EU states, within the framework of the successive Lomé Conventions and the Cotonou Agreement (Fiott 2010). The relationship began in the 1960s, before the Lomé Convention and it has mainly focused on areas such as developmental finance, trade promotion, political stability, industrial development methods, energy, regional co-operation development, socio-cultural issues, agriculture and the environment. The aim of Kenya's relationship with the countries was to increase export quantities and income,

the promotion of industrialisation, leading to stable economic growth (Langan 2014). Table 3.8 shows Kenya's import sources from the 27 member countries.

Table 3.8: Kenya's top import sources from EU (27)(US$ Million)

Exporter/Yrs.'	2006	2007	2008	2009	2010	2011	2012	2013
United Kingdom	373.1	437.1	402.6	473.2	626.3	492.1	493.5	553.0
Germany	262.6	329.4	389.7	294.4	332.6	365.5	384.2	435.3
Netherlands	126.3	138.3	192.1	225.9	232.8	258.7	271.3	287.8
France	147.5	245.3	237.6	206.8	235.8	228.1	233.4	241.2
Italy	168.1	196.5	181.7	179.9	151.1	165.5	190.2	236.0
Belgium	94.4	92.6	119.7	91.2	96.3	122.3	143.4	151.6
Spain	37.6	63.4	48.9	51.8	41.0	73.0	88.1	97.1
Sweden	55.4	59.1	95.7	80.8	71.3	96.8	90.1	82.3
Denmark	22.8	23.0	69.0	74.7	58.2	98.2	85.3	53.8
Ireland	218.6	54.5	21.5	27.4	79.3	60.8	56.7	50.9

Source: UN Comtrade Statistics (2016)

The EU member-states continue to enjoy the benefits from being major exporters to Kenya. The European Union through the Lomé, Cotonou agreement allowed the ACP nations preferential market access for primary products, basically agricultural and many other agro-based products. This interdependence over the years between Kenya and the United Kingdom, Germany, France, Netherlands, Italy, Belgium, Sweden, Ireland, Finland, Spain and Denmark, among other EU nations, who enjoyed the goodwill of Kenyans and EAC members, resulted in dan increase in Imports from the EU.

The most active trade partners with the largest exports to Kenya from the European Union include the United Kingdom, Germany, the Netherlands, Italy, France, Belgium, Sweden, Ireland, Finland, Spain and Denmark. The United Kingdom is and has been the largest exporter of goods to Kenya valued at US$553 million in 2013; and it is steadily growing. It is also important to note that in 2010, Kenya imported goods to the value of US$626.3 million from

United Kingdom, after which it stabilised to US$ 492.1 million in 2011, to follow a more normal growth path. Kenya's largest imports from the United Kingdom comprised machinery, nuclear reactors and boilers worth US$139 million. The second largest imports from the United Kingdom were vehicles and tramways valued at US$110.9 million; electrical and electronic equipment worth US$45.8 million and iron or steel worth US$30.4million.

After the United Kingdom, Germany is the second leading exporter to Kenya in the EU. Kenya imported goods and services valued at US$435.3 million from Germany in 2013. Kenya's import bill from Germany went up from US$262.6 million in 2006 to US$329.4 million in 2007. After this rise in 2007, Kenyan imports shot up to US$389.7 million in 2008. Thereafter it fell to US$294.4 million in 2009. Kenyan imports from Germany increased to US$332.6 million in 2010 and again continued growing steadily to US$ 365.5million in 2011. It finally peaked of US$ 435.3 million in 2013.

The highest volume of imports from Germany consisted of vehicles (other than railways) and tramways valued at US$120.9 million. This was followed by electrical and electronic equipment worth US$39.4 million and miscellaneous chemical products priced at US$27.5 million. Other products were optical, photo, technical and medical apparatus, Pharmaceutical products, aircraft, spacecraft and parts. Other goods consisted of textile articles, sets, worn clothing, paper and paperboard, articles of pulp, paper and board, and organic chemicals.

Netherlands is the third key source of imports for Kenya from the EU after Germany. Imports from the Netherlands entering the Kenyan market have increased from US$126.3 million in 2006 to US$287.8 million in 2013. The highest volume of imports from the Netherlands comprised mineral fuels, oils, distillation products with an import value of US$107.5 million. Second highest of the imports include machinery, nuclear reactors and boilers amounting to US$54.9 million, plastics and plastic articles valued at US$22.3 million.

Supplementary goods imported from the Netherlands comprised vehicles (other than railway) tramways, electrical and electronic equipment and pharmaceutical products. Miscellaneous products included chemical products, optical, photographic, technical and medical apparatus, rubber and rubber articles, beverages, spirits and vinegar, aircraft, spacecraft and parts, live trees, plants, bulbs, roots, and cut flowers, among other goods.

Other vital sources for Kenyan imports from the EU in descending order are: France, Italy, Belgium, Spain, Sweden, Denmark and Ireland, which have import values of US$241.2 million, US$236 million, US$151.6 million, US$97.1 million, US$82.3 million, US$53.8 million and US$50.9 million, respectively. These values relate to the year 2013.

3.4.3 Kenya's Trade Balance in EU (27)

Kenya has managed to achieve a balance of payments surplus with individual EU member countries such as Netherlands, Poland and UK IN 2006, 2008, 2009 and 2011 as is shown in Table 3.9. It is largely negative and the gap is widening further, especially when trading with the 27 European Union member countries (UN Comtrade Statistics 2016). Table 3.9 illustrates Kenya's trade balance with the EU states from 2006 to 2013.

Table 3.9: Trade Balance between Kenya and the EU (27) (US$ Million)

Partners	2006	2007	2008	2009	2008	2011	2012	2013
U.K.	7.4	-9.4	148.0	24.9	-119.1	44.0	-3.1	-116.9
Netherlands	150.9	187.4	188.0	114.8	106.2	118.5	106.6	90.3
Germany	-197.5	-241.0	-300.4	-199.2	-235.3	-278.6	-290.1	-339.6
Belgium	-64.1	-54.0	-78.8	-47.4	-43.9	-71.1	-74.6	-79.7
France	-83.4	-182.1	-165.5	-150.7	-170.3	-162.0	-168.4	-177.4
Italy	-140.0	-158.2	-138.4	-148.3	-110.0	-89.8	-120.1	-183.4
Sweden	-40.1	-35.5	-72.8	-48.5	-36.7	-64.1	-59.9	-53.5
Spain	-20.5	-39.2	-17.6	-32.3	-15.4	-47.9	-64	-73.7
Poland	2.8	4.1	7.9	-5.0	-8.4	4.0	-2.3	-7.7
Ireland	-207.1	-42.5	-9.6	-14.9	-65.9	-49.2	-43.9	-37.2

Source: UN Comtrade Statistics (2016)

Kenya registered a negative trade balance with the EU, as shown in Figure 3.4. Kenya's balance-of-trade fell sharply from –US$727.7 million to a further – US$1181.240 million in 2013. Görtz, and Keijzer (2012) argued that the EPA was beneficial to Kenya especially in areas such as fisheries and horticulture, due to Kenya's production and supply capacity. Other goods that benefited are agricultural products, like coffee, tea, and sugar.

The ACP member states, including Kenya, gained at different levels, depending on their production and supply capacities. Studies by Görtz and Keijzer (2012) also suggested that the ACP states with increased production and supply volumes performed better in terms of exports compared to the non-ACP developing countries at the same level of economic development.

The EU is Kenya's major single source of imports, mainly industrial (finished) products, such as motor vehicles and parts, aircrafts and associated equipment, medicaments, data-processing instruments, rubber tyres and other articles of rubber and plastic, iron and steel products, medical and veterinary instruments, motor machinery, farm chemicals, telecommunications equipment, electrical and electronic goods, refrigeration equipment, food-processing machinery, paper and paperboard, textiles and clothing, and hides and skins (Aniche 2015).

The analysis of the composition of Kenya's exports and imports from the EU states justifies the goals of this study in respect of the need to assess the influence of trade liberalisation on Kenya's economy. The greater differences in its trade balance especially between Kenya and EPA evokes such questions as to whether Kenya benefits from this trade arrangement and what should be done to maximise these gains.

3.5   Kenya's trade performance in the WTO

This section investigates Kenya's trade performance in comparison with the other WTO member states. The WTO is the largest international organisation

mandated with regulation of trade since its establishment in 1995 (WTO 2014). The WTO attracted many nations; as of the 15th December 2005, there were 153 member countries, which had signed to be part of the WTO (Shaffer, Elsig & Puig 2015).

The WTO was established after the General Agreement on Tariff and Trade (GATT), which meant that countries had to reduce the barriers to international trade by completely or the partially removing tariffs and non-tariff barriers on goods crossing borders to other countries; the GATT supports free trade among countries. The trade performance between Kenya and the WTO member states are as shown in Figure 3.4.

3.5.1 Kenya's top export sources to the WTO

Figure 3.4 illustrates Kenya's performance with the WTO and the rest of the world from 2001 to 2013. Kenya's export pattern indicates small fluctuations, but export volumes generally increased. The trade pattern of the WTO followed similar trends; and in many ways, they were exactly the same. This is evident from the imports into Kenya from the world and the WTO having very slight differences, almost appearing to be identical. This meant that the same countries that import goods to Kenya from the WTO are the same as those countries in the world. The trends in export and trade balances followed similar patterns, thereby indicating that there are few countries, which are not part of the WTO, hence causing a slight change in the pattern through slightly higher exports than the WTO. It also affects the trade balance by resulting in slightly smaller trade balances in the WTO than in world trade balances (Matsushita, Schoenbaum, Mavroidis & Hahn 2015).

Figure 3.4: Kenya's trade performance with the WTO and the rest of the world
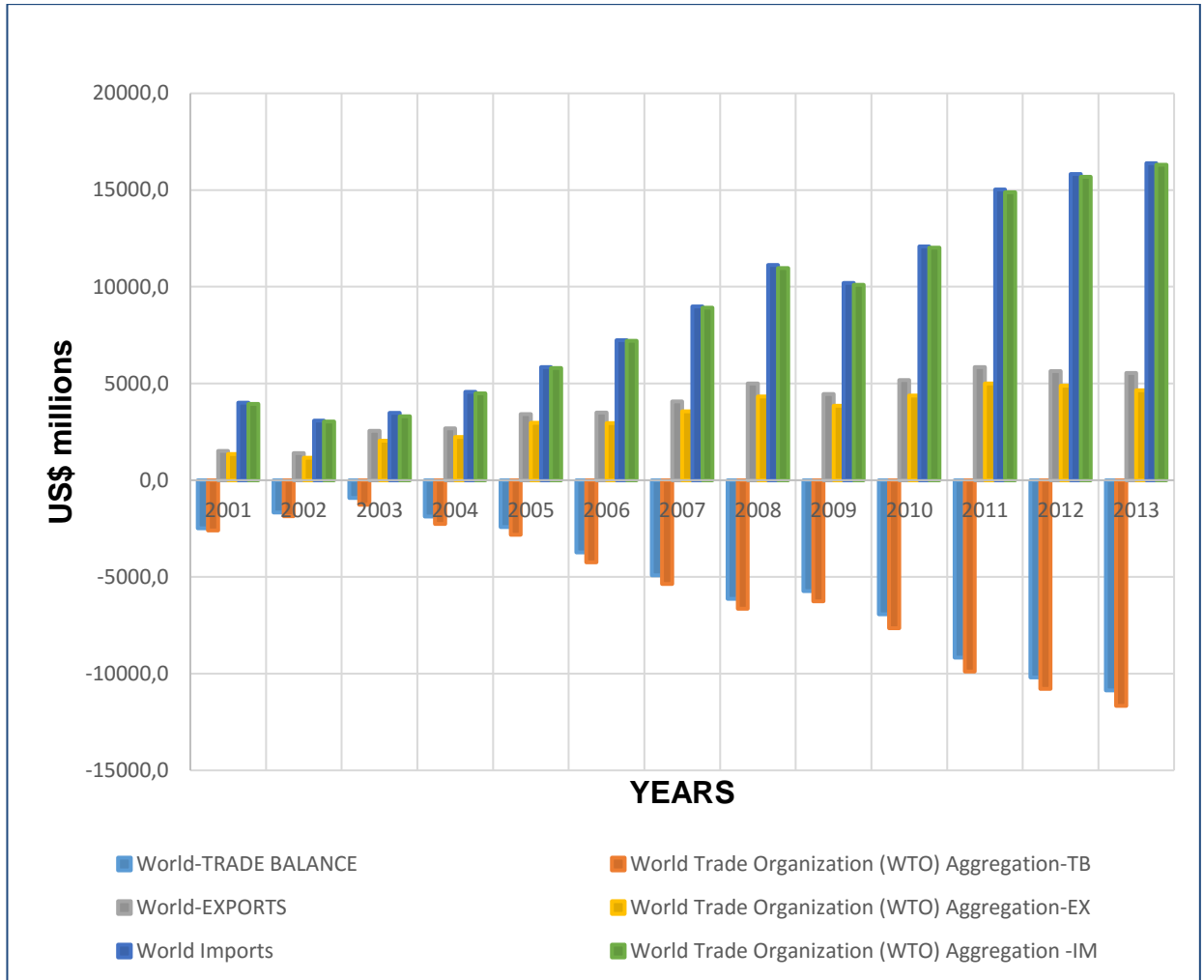
Source: UN Comtrade Statistics (2016)

Kenya's general trade performance has shown a steep rise in the levels of imports both from the world and from the WTO. On the contrary, the Kenyan exports to the world and to the WTO have also risen, but very gradually leading to a higher balance-of-trade deficit. The WTO has a higher balance-of-trade deficit than the world. This can be attributed to the higher level of exports to countries in the World, but which are not in the WTO. These trends show a warning for Kenya to keenly look into the quality and quantity of exports to the WTO and the world, in order to improve its balance-of-trade condition.

The majority of the developed and developing nations have made deliberate efforts to increase their exports through trade liberalisation and regionalism. Among these efforts, there is the formation of regional trade arrangements (Whalley 1998). Kenya's export destinations to the WTO are illustrated in table 3.10.

Table 3.10: Kenya's Export Market to the WTO (US$ Millions)

Importers	2006	2007	2008	2009	2010	2011	2012	2013
Uganda	387.0	498.9	614.7	598.3	657.3	872.6	797.9	658.7
United Kingdom	380.4	427.7	550.6	498.1	507.2	536.0	490.4	436.0
Tanzania	253.8	331.7	424.9	389.3	420.2	476.1	544.6	424.2
Netherlands	277.2	325.7	380.1	340.7	338.9	377.2	277.2	378.1
USA	291.3	285.8	299.6	226.1	284.9	293.1	320.8	347.3
Pakistan	201.7	201.0	202.3	196.3	227.9	241.4	270.9	279.7
UAE	69.2	128.2	109.8	138.7	237.8	229.3	256.4	264.7
Congo DRC	107.0	123.5	143.6	146.5	161.4	200.0	203.0	205.5
Egypt	137.1	135.4	224.7	153.8	228.5	267.1	248.1	197.3
Rwanda	66.1	86.2	130.4	123.4	132.9	155.0	191.1	142.0
India	52.2	86.7	98.2	66.5	106.9	107.5	108.2	109.8

Source: UN Comtrade Statistics (2016)

The main global export destination for the goods produced in Kenya includes the following eleven countries, arranged in descending order relevant to the value of trade transactions listed in table 3.10. These destinations are Uganda, the United Kingdom, Tanzania, the Netherlands, the USA, Pakistan, the United Arab Emirates, the Democratic Republic of the Congo, Egypt, Rwanda and India.

This study realised that between 2006 and 2013, the main export destination for most of Kenya's goods and products is Uganda (UN Comtrade 2016). The bulk of Kenya's trade volumes are between Kenya and Uganda, implying that

Kenya benefits significantly from the Kenya-Uganda trade agreements, which have grown from US$387 million in 2006 to US$658.7 million in 2013.

The second main export destination for Kenya cumulatively from 2006 to 2013 is the United Kingdom. Table 3.10 shows that Kenyan exports to the U.K. constitute 35.9 per cent of all exports to the European Union and the second largest to the WTO (UN Comtrade 2016). The UN Comtrade (2016) shows that during 2013, Kenya exported US$436.0 million to the United Kingdom. This is after a drop in export receipts from a peak of US$536 million in 2011 to US$ 490.4 million in 2012. The trend in the export market has been growing steadily, indicating that the United Kingdom is gaining from this trade relationship.

Tanzania is the third largest export destination for Kenya in the global economy. In 2006, Kenya was able to export goods valued at US$253.8 million to Tanzania (UN Comtrade 2016). Over a five-year period, exports have increased to US$424.2 million in 2013. Among the major trade goods with Tanzania are items such as animal and vegetable fats and oils, cleavage products, iron and steel, soaps, lubricants, waxes, candles, modelling pastes, plastics and articles thereof, vehicles (other than railways) and tramways, pharmaceutical products, Aluminium and aluminium articles, salt, sulphur, earth, stone, plaster, lime and cement, mineral fuels, oils, distillation products, electrical and electronic equipment, sugar and sugar confectionery.

The other key export destinations for Kenyan products, arranged in descending order, based on the 2013 data figures include countries such as the Netherlands US$ 378.1 million, the USA US$ 347.3 million, Pakistan US$ 279.7 million, the United Arab Emirates US$264.7 million, the Democratic Republic of Congo US$ 205.5 million, Egypt US$197.3 million, Rwanda US$142 million, India US$109.8 million. Besides Germany and the Russian Federation these are the top eleven export destinations for Kenya's goods and services to the WTO.

3.5.2 Kenya's top import sources from the WTO

Kenya's like all other nations is unable to be totally self-sufficient which compels it to import some products globally (Levin & Widell 2014). The imports from the WTO, more than other imports from partner-regional trading groups, have dominated the Kenyan markets from 2006 to 2013. Kenya's major sources of imports are from the global economic countries, such as India, China, the United Arab Emirates, Japan, South Africa, the United States of America, the United Kingdom, Indonesia, Saudi Arabia and Germany organised in descending order in Table. Table 3.11 shows Kenya's major sources of imports from the World Trade Organisation.

Table 3.11: Kenya's Major Sources of Import from WTO (US$ Millions)

Exporters	2006	2007	2008	2009	2010	2011	2012	2013
India	524.3	844.6	1309.5	1078.1	1301.6	1714.5	2504.2	2998.4
China	412.4	678.7	932.2	965.2	1522.5	1638.3	1965.1	2117.4
UAE	1075.9	1329.0	1655.7	1161.8	1462.9	2280.6	2394.6	1362.7
Japan	408.1	611.2	649.3	632.7	734.6	669.2	853.3	972.1
South Africa	470.9	525.3	678.2	913.8	754.2	818.4	820.0	821.2
USA	343.3	661.6	402.3	649.1	496.0	508.0	610.2	667.5
UK	373.1	437.1	402.6	473.2	626.3	492.1	493.5	553.0
Indonesia	190.9	278.8	335.7	243.1	339.8	516.3	520.4	523.0
S. Arabia	369.1	261.4	373.1	356.4	406.8	598.0	551.3	481.0
Germany	262.6	329.4	389.7	294.4	332.6	365.5	396.4	435.3

Source: UN Comtrade Statistics (2016)

India is shown to be the largest of the WTO countries that supply goods and products to the Kenyan market, evidenced from the imports listed in the table 2006 to 2013. Kenyan imports from India represent over 18.4 per cent of the total imports from the WTO, as shown in table 3.11. The Kenyan imports from India, being the largest, include mineral fuels, oils, and distillation products worth US$1745 million. These were followed by pharmaceutical products valued at US$187.7 million; machinery, nuclear reactors and boilers with an

import value of US$171.8 million; electrical and electronic equipment valued at US$149.9 million. Supplementary goods imported by Kenya include iron and steel US$149.8 million, vehicles (other than railways), tramways, plastics and plastic articles, articles of iron or steel, paper and paperboard, articles of pulp, paper and board and organic chemicals.

China is the second largest source of imports in Kenya in the global economy. In 2013, Kenya imported goods worth US$2.1174 billion. This formed 13 per cent of the total import bill, as can be seen from Table 3.11. The Kenyan Imports from China have grown from US$412.4 million in 2006 to US$2117.4 million dollar in 2013.

Kenya imported the following goods from China: electrical, electronic equipment valued at US$427.2 million, it being the largest of the imports. The second largest group of imports were machinery, nuclear reactors and boilers worth US$ 355.2 million; vehicles (other than railways) and tramways valued at US$213.9 million, articles of iron or steel costing US$144.3 million, plastics and articles thereof priced at US$91.2 million. Other goods included rubber and rubber articles, furniture, lighting, signs, prefabricated buildings, iron and steel, knitted or crocheted fabrics, ceramic products, optical items, and photographic materials, technical and medical equipment.

The other countries among the top ten exporters to Kenya include countries like the United Arab Emirates, Japan, South Africa, USA, UK, Indonesia, Saudi Arabia and Germany.

3.5.3 Kenya's trade balance performance in the WTO

Kenya's trade balance with most of the leading WTO partner states is shown in Table 3.12.

Table 3.12: Kenya's trade balance with major WTO partners (US$ Millions)

Partners	2006	2007	2008	2009	2010	2011	2012	2013
Uganda	373.0	410.0	539.3	541.0	541.0	755.8	616.6	472.0
UK	7.4	-9.4	148.0	24.9	-119.1	44.0	493.5	-116.9
Tanzania	191.0	232.5	319.4	288.2	287.2	295.3	170.4	288.7
Netherlands	150.9	187.4	188.0	114.8	106.2	118.5	106.6	90.3
USA	-52.0	-375.8	-102.7	-423.0	-211.1	-214.9	289.4	-320.2
Pakistan	140.1	126.7	120.9	95.9	124.3	43.2	88.3	98.0
UAE	-1006.6	-1200.8	-1545.9	-1023.2	-1225.1	-2051.3	-2138.2	-1098.0
Congo	94.1	100.8	129.3	135.1	144.6	171.6	186.6	199.0
Egypt	23.2	-30.6	67.3	29.5	-3.5	62.3	11.3	-100.0
Rwanda	63.2	84.9	130.0	120.3	127.5	150.3	181.4	130.3
India	-472.1	-757.8	-1211.4	-1011.6	-1194.7	-1607.0	-2396	-2888.7

Source: Author's own calculations and UN Comtrade Statistics (2016)

Table 3.12 clearly shows that the regional trade arrangements could have been the contributing factor to positive trends in the market (Levin & Widell 2014). Among the countries with a positive balance-of-trade, are Uganda, Tanzania, the Netherlands, Pakistan and the DRC. It is evident that all these countries are connected to Kenya through regional and bilateral free-trade agreements, such as EAC, EPA, WTO, AGOA, and COMESA. This gives Kenya a trading advantage, and hence, a positive balance-of-payment condition (Matsushita *et al.* 2015).

An in-depth scrutiny of Kenya's trade-balance performance in comparison to its major trading partners in the context of the WTO reveals that Kenya incurred a balance-of-trade deficit with its major trading partners, including the United Kingdom, the United States of America and India among other nations in the WTO. This is evident in the quality of imports Kenya receives from the developed nations, like China. Many of these imports are of finished manufactured goods that fetch higher prices in the internal market. Kenya's balance-of-trade is disadvantaged as it imports primary unprocessed or semi-

processed primary products, which fetch low prices in the world market (Bienen 2015). Kenya registered a negative trade balance with the majority of its major trading partners, which is of concern and it can only be corrected through improvement of the quality and quantity of exports (Levin & Widell 2014).

3.6   Kenya's export destinations by grouping

The assessment of Kenya's trade with other trading partners showed how its exports have performed across the major trading bloc; the assessment was done by means of a comparison chart that summarised the export destination of these products as shown in Figure 3.5.

Figure 3.5: Kenya's export destinations
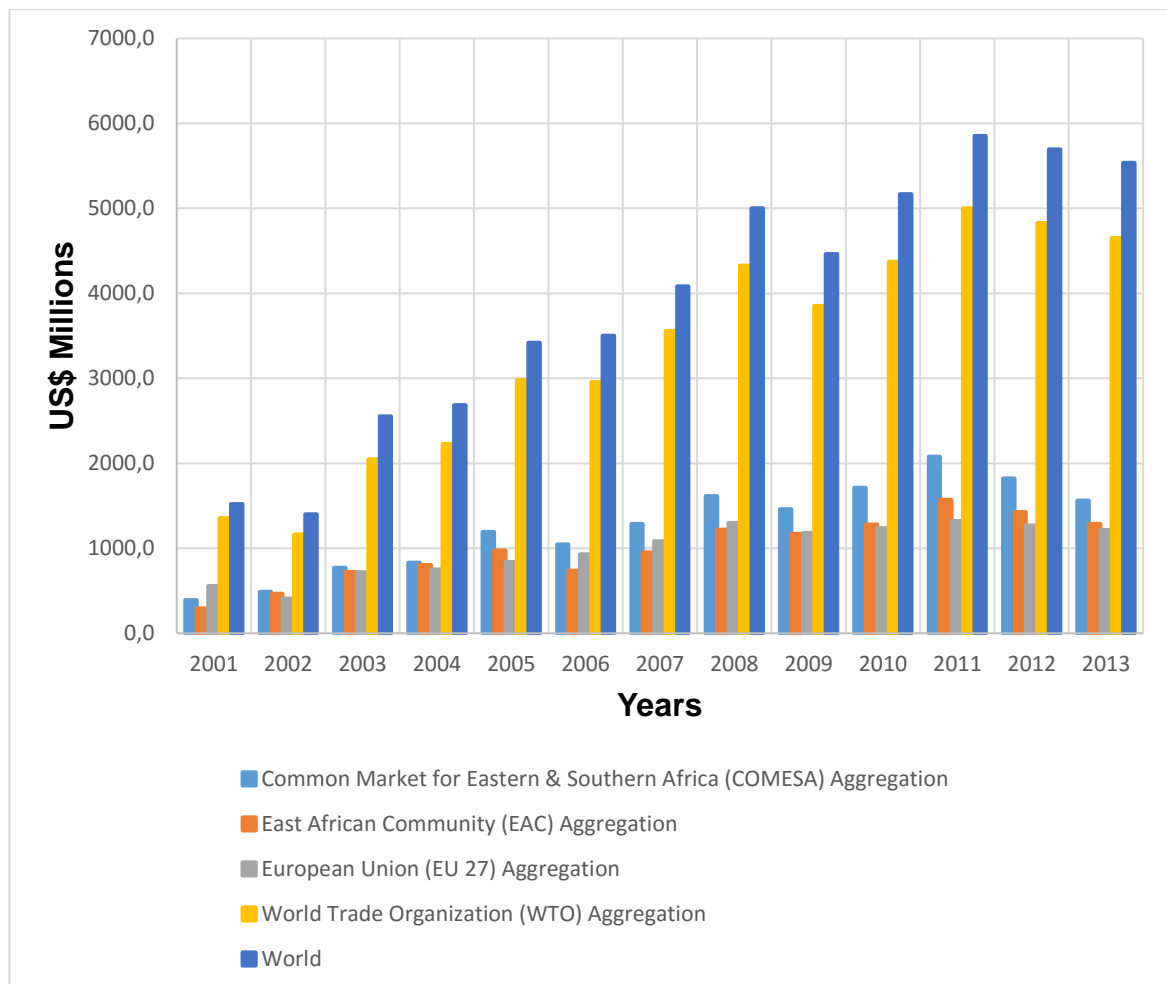
Source: Author's own calculations and UN Comtrade (2016)

This analysis shows the major trading partners of Kenya based on exports; which is one of the objectives of this study. Figure 3.5 shows that Kenya primarily trade with the world, followed by the WTO, COMESA, then the EU, and finally, the EAC, which almost have similar export trends. This is evident from the UN COMTRADE statistics (2016). The statistics show Kenya's exports to the World is US$5,537 billion, their exports to the WTO is US$4,652.8 billion, to COMESA US$1,561.8 billion and US$1,285.4 billion to EAC, and finally US$1,214.6 billion to the EU. This means that COMESA is the largest export destination for Kenya based on their regional trade agreements.

3.7   Geographical sources of Kenya's imports by Grouping

This section discusses the major trading groups of Kenyan imports. Figure 3.6 presents an illustration of Kenya's import origins and trends.

Figure 3.6 show that the rest of the world and the WTO member states supply the bulk of Kenya's imports. EPA states are the third largest suppliers of imports to Kenya, followed by COMESA, and finally the EAC. This could be attributed to the production of similar agricultural goods and similar primary exports from within the East African region, making inter-regional trade minimal within the region (Salami, Kamara & Brixiova 2010).

The production of similar agricultural goods in most trading blocs in Africa raises the questions whether or not there is inter-state trade. This also leads to questions on how they are benefiting from trade liberalisation and who gains most by it.

Figure 3.6: Kenya's major Import sources by grouping
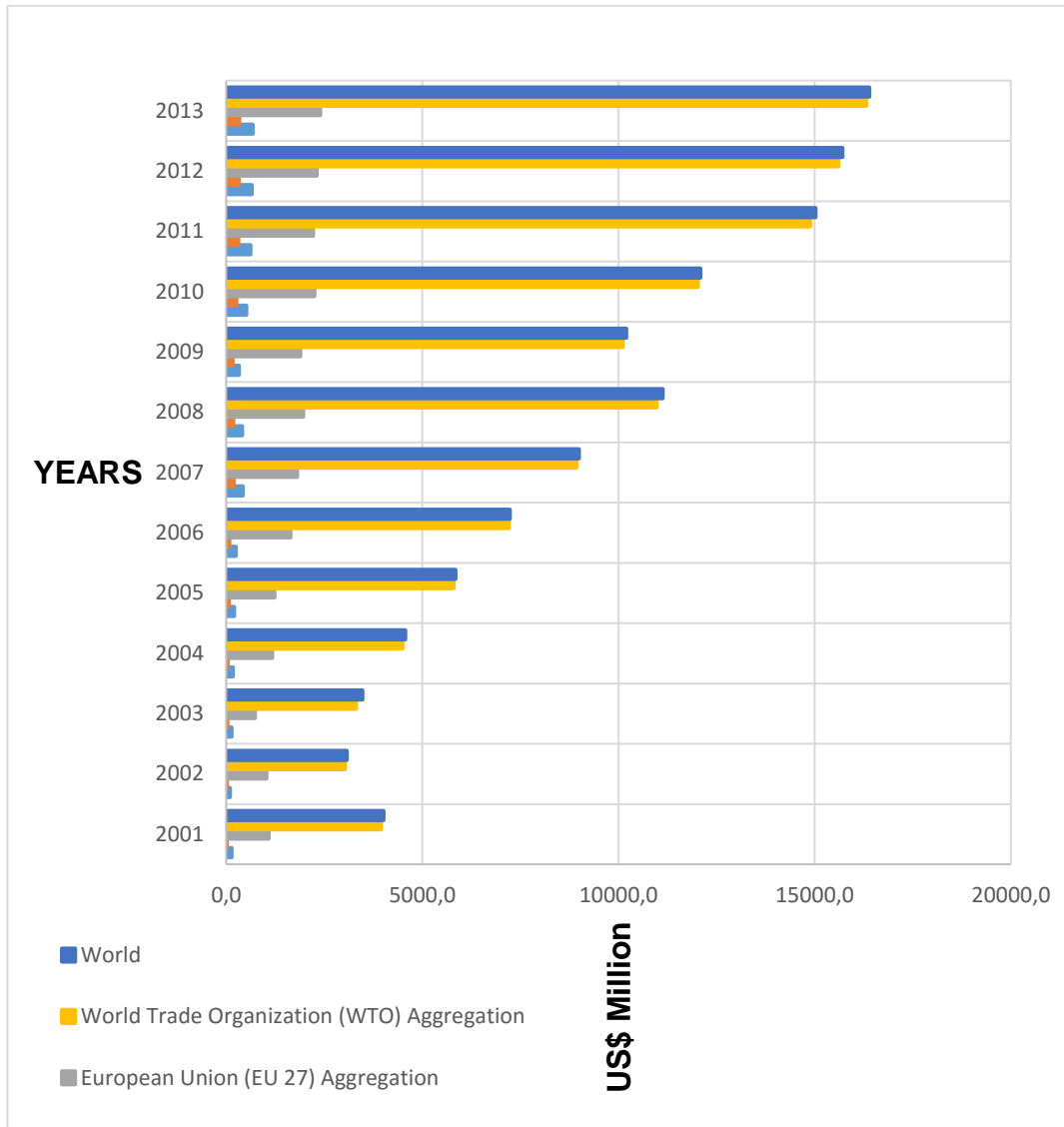
Source: Author's own calculations and UN Comtrade Statistics (2015)

3.8   Composition of Kenya's Trade

In this section the composition of Kenya's export and import trading is scrutinised. This provides an opportunity to analyse the quality and quantity of Kenya's exports, their marketability in the international market compared to those of its neighbours and other global partners. The aim is to assess whether the bulk of Kenya's exports (and its imports) are composed of primary, finished or manufactured goods.

3.8.1 Composition of Kenya's exports

The Kenyan trade volumes have mostly registered a balance-of-trade deficit because of the quality of its exports, which primarily comprises agricultural goods that are vulnerable to price inflation and the effects of natural risks (De Melo & Tsikata 2015). This is illustrated in table 3.13.

Table 3.13: Composition of Kenya's exports by SITC section (US$ Millions)

Product label	2011	2012	2013	2014
All products	100	100	100	100
Coffee, tea, mate and spices	24.11	24.895	25.68	20.48
Live trees, plants, bulbs, roots, cut flowers etc	8.75	9.235	9.72	12.29
Mineral fuels, oils, distillation products, etc	4.41	4.175	3.94	12.21
Edible vegetables and certain roots and tubers	4.21	4.48	4.75	4.74
Articles of apparel, accessories, not knit or crochet	1.67	2.1	2.53	3.38
Inorganic chemicals, precious metal , isotopes	3.02	2.67	2.32	3.36
Articles of apparel, accessories, knit or crochet	2.62	2.585	2.55	3.17
Salt, sulphur, earth, stone, plaster, lime and cement	3.42	3.205	2.99	2.45
Raw hides and skins (other than furskins) and leather	1.42	1.615	1.81	2.19
Vegetable, fruit, nut, etc food preparations	2.07	2.405	2.74	2.11
Edible fruit, nuts, peel of citrus fruit, melons	1.22	1.33	1.44	1.85
Plastics and articles thereof	2.86	2.96	3.06	1.85
Tobacco and manufactured tobacco substitutes	3.69	3.3	2.91	1.7
Machinery, nuclear reactors, boilers, etc	1.68	1.315	0.95	1.69
Soaps, lubricants, waxes, candles, modelling pastes	2.44	2.245	2.05	1.59
Iron and steel	3.11	2.925	2.74	1.53
Pharmaceutical products	1.45	1.465	1.48	1.42
Fish, crustaceans, molluscs, aquatic invertebrates	0.76	0.69	0.62	1.36
Ores, slag and ash	0.2	0.135	0.07	1.31
Animal and vegetable fats and oils, cleavage products	3.39	2.79	2.19	1.21
Commodities not elsewhere specified	0	0	0	1.19
Printed books, newspapers, pictures etc	0.69	0.65	0.61	1.16
Electrical, electronic equipment	1.45	1.42	1.39	0.99
Others	21.36	21.41	21.46	14.77

<u>Source</u>: UN Comtrade Statistics (2016)

Table 3.13 demonstrates that in 2013, the major Kenyan exports were: Coffee, tea and spices, which account for 25.68 per cent of the exports, of which the remaining exports are primarily agricultural products.

The results in table 3.13 confirm that most of Kenya's main exports are primarily agricultural products, which are prone to many loss-causing risks (Tumwebaze & Ijjo 2015). These risks Kenya face include volatile prices, inadequate credit facilities in agriculture, loss produced in transit from the farms to the market, poor quality soil, little research in agriculture, natural calamities, and the high level of competition from regional producers, among others (Juma 2010).

These risks and losses described above could also be attributed to the fact that most agricultural products are less diversified. Salami *et al* (2010) argued that the concentration of agricultural products leads to big losses due to natural disasters or price inflation. This also applies to Kenya as coffee, tea, mate and spices have been the key Kenyan exports for longer periods, hence losses and large-scale negative effects, if the sector is affected. Juma (2015) further argued that the overdependence on agricultural produce as the main source of exports is very risky in a liberalised economy; since the prices may be low, due to over-flooding of the market from regional competitors, which translates into low earnings (Juma, 2010).

3.8.2 Composition of Kenya's Imports

In contrast to Kenyan exports, the imports into the Kenyan market are durable, finished and high-technological goods and services as demonstrated in Table 3.14.

Table 3.14: Composition of imports by SITC section (US$ Millions)

Product label	2011	2012	2013	2014
All products	100	100	100	100
Mineral fuels, oils, distillation products	27.81	25.745	23.68	21.09
Machinery, nuclear reactors, boilers	9.82	10.465	11.11	8.56
Vehicles other than railway, tramway	6.57	7.315	8.06	7.77
Electrical, electronic equipment	6.97	7.28	7.59	6.87
Aircraft, spacecraft, and parts thereof	1.78	1.655	1.53	6.66
Cereals	4.3	3.91	3.52	4.15
Iron and steel	4.47	4.6	4.73	3.81
Plastics and articles thereof	4.09	4.2	4.31	3.28
Pharmaceutical products	2.92	2.82	2.72	2.69
Paper , paperboard and pulp	2.47	2.215	1.96	1.93
Articles of iron or steel	1.37	1.935	2.5	1.92
Furniture, lighting, signs	0.69	0.815	0.94	1.77
Articles of apparel, accessories,	0.2	0.205	0.21	1.54
Other made textile articles, sets	1.27	1.08	0.89	1.44
Animal, vegetable fats and oils	4.28	3.855	3.43	1.33
Miscellaneous chemical products	1.67	1.725	1.78	1.3
Rubber and articles thereof	1.13	1.245	1.36	1.12
Optical, photo, technical, medical, etc	1.2	1.375	1.55	1.1
Articles of apparel, accessories,	0.07	0.075	0.08	1.09
Footwear, gaiters and the like	0.18	0.21	0.24	1.02
Coffee, tea, mate and spices	0.11	0.125	0.14	1
Others	16.63	17.15	17.67	18.56
Total	83.37	82.85	82.33	81.44

Source: UNCTAD Databases (2015)

The results in table 3.14 indicate that the bulk of imports into Kenya are mineral fuels, oils, distillation products, which constitute 21.09 per cent of the total imports into Kenya. Among the other imports into Kenya, there are goods such as machinery, nuclear reactors, boilers, electrical and electronic equipment,

vehicles (other than railway), tramways, iron and steel, among many other finished goods.

The high quality industrial imports against the primary agricultural exports are the primary causes of the negative balance-of-trade condition. This state also becomes very important it is addressed in the study objectives, which seek to determine the impact of trade liberalisation on the imports and exports in the various free-trade and customs-union agreements that need to be discussed.

The analysis of the composition of Kenya's exports and imports justifies the goals of this study on the need to assess the influence of trade liberalisation on Kenya. The differences in trade balances, especially between Kenya, EPA and WTO, poses a question whether Kenya is gaining from this trade arrangement and what should be done to maximise these gains.

3.9   Summary

This study explored Kenya's trade performance, trends and developments with its trading partners. COMESA, EAC, WTO and EPA were among the trading partners investigated with the primary aim to determine from which trade agreement Kenya derives the most benefits and which the least benefits in order to establish beneficial policy recommendations.

Through the analysis it became clear that Kenya's trade performance has shown minimal improvement, due to the continuous trends of negative balance-of-trade conditions. This means Kenya has not been able to maximise its place in trade agreements as trading patterns worsen and the trade deficit continues to increase even as recently as 2013.

The most visible explanation for the balance-of-trade deficits is the quality and quantity of exports that Kenya supplies to its partners. It is clear that Kenya exports unprocessed or semi-processed primary agricultural products without, or with less, value addition. The same products are normally processed and then sold back to Kenya at higher prices, meaning Kenya is losing out. Hence,

the quality of goods exported has contributed significantly to the negative balance-of-trade condition.

Kenya's main trading partners include Uganda, the United Kingdom, Tanzania, the Netherlands, the USA, Pakistan, the United Arab Emirates, the DRC, Egypt, Rwanda and India. It is also important to note that Kenyan and Ugandan relations are important, since among the largest imports and exports are between Kenya and Uganda; factoring in the United Kingdom, which has dominated the European Union and the rest of the world to open up and to receive most of Kenya's exports. The trend remained constrained until 2013, with COMESA still maintaining the lead, thereafter they exported to the rest of the world, the EAC and the EPA; the least exports in 2013 were to the EPA.

The following chapter will examine the theoretical literature along with the empirical literature on trade liberalisation. This study intends to use the theoretical literature to explore trade creation, trade diversion, and the economies-of-scale argument, the static and dynamic effects of customs unions, the revenue and welfare effects of a customs union, and any other policy effects of trade liberalisation. The empirical literature examined the impact of regional integration in two ways: such as the ex post approach that measures the effect of regional trade agreements by using the simple investigation of an intra-regional trade pattern, following the formation of regional trade agreements. Finally, the ex-ante approach explains studies that were undertaken before the formation of the regional trade agreements. In the next chapter, the researcher provides a general assessment of some current findings that drew heavily on the studies of past researchers.

CHAPTER FOUR
EFFECTS OF TRADE LIBERALISATION

4.1   Introduction

Chapter Four of this study discusses the areas regarding the theoretical and the empirical literature on trade liberalisation. This includes trade-creation effects, trade-diversion effects, the consumer-welfare effects, the effects of economies-of-scale, the static and dynamic-effect argument on customs-union protocols, and other aspects of the policy effects on trade liberalisation and integration.

This chapter was organised in the following way: Section 4.1 outlines the introduction of the chapter, the terrain of research along with the structure of the chapter. Section 4.2 briefly explains the theoretical literature in respect of trade liberalisation. Subsection 4.2.1 discusses trade effects in general, and 4.2.2 examines the relationship between trade liberalisation and the trade-diversion effects. Subsection 4.2.3 deliberates on the static and dynamic gains of the customs union, and other cases in developing countries and in the world. Subsection 4.2.4 comprises a discussion on revenue and the consumer welfare effects, and how these are influenced by the customs-union protocol in line with this study's objectives. Subsection 4.2.5 of this chapter examines the economies-of-scale, the factor of trade liberalisation.

Section 4.3 presents an in-depth discussion on the empirical literature describing various aspects of trade liberalisation, the WITS/SMART model, and the previous results when applied in different case studies. Finally, Section 4.4 summarises this chapter, giving a general overview of the chapter.

4.2   The theoretical literature

This section of the study examines the theoretical literature on trade liberalisation. It reviewed the related literature in relation to the research aims and objectives of the study. It mainly examines the influence of trade liberalisation on various trade variables, which include trade creation, trade

diversion, revenue effects, consumer-welfare effects, and finally, the export and import quantities.

4.2.1 Trade creation

Trade creation is a term inter-related with international transactions. Trade flows are redirected, as a result of the formation of regional trading blocs. This theory was first introduced by Jacob Viner in 1950. This occurs when a lower-cost producer or a more-efficient producer in an RTA dislodges a high-cost producer or a less-efficient producer in the same regional-trade agreement. This would lead to the consumers benefiting from the lower prices (Viner 1950).

This was further reiterated by Bhagwati and Panagariya (1996), who added more impetus to the discussion by noting that regional trade arrangements provide nations with preferential liberalisation, besides trade-creating. It means that when a country signs up to become a member of a regional trade agreement it merges with that economy causing the high-cost domestic producer to lose trade in favour of a low-cost domestic producer. Furthermore, protection from foreign competition is withdrawn, and more competitors are brought into the industry.

Cooper and Massell (1965) argued that entering into free-trade agreements opens up wider markets for business players in the region. It also opens up the opportunity for fierce competition among the regional producers and suppliers. This means that only the most efficient producer with better-quality goods and the cheapest price would have his way and dominate the market, displacing other domestic producers. Bhagwati (1994) as well as Bhagwati and Panagariya (1996) emphasised that free trade agreements and customs-union protocols are trade-creating that encourage the more-efficient production of goods and services, which are advantageous to the member states and the rest of the world.

Studies by Gauto (2012) illustrate the fact that as many producers scramble for the regional market, only the most efficient would succeed through providing consumers welfare benefits, cheaper commodities or imports. This can be seen by the presence of cheap imports in Kenya from COMESA countries, like Egypt, the Democratic Republic of Uganda, among others. This also means that Kenyan producers would be displaced – leading to de-industrialisation in Kenya.

When assessing the trade-creation effects in customs-union protocols, it is seen to bring about a decrease in domestic prices, and it unmistakeably increases welfare in the importing state (Schiff & Winters 2003). It is also important to note that in regional trade arrangements, besides trade creation, some regional trade agreements cause trade-diversion effects.

4.2.2 Trade diversion

Viner (2014), however claimed that trade diversion occurs when a less-efficient producer of commodities with the RTA displaces a superior producer from outside the regional trade zone. Schiff and Winters (2003) also maintain that as nations enter into a free-trade agreement or a customs-union agreement, taxes and tariffs are abolished for the member states within the RTA, but they are retained for nations outside the RTA.

This means that a supplier from within the RTA countries would be able to produce quality goods at the cheapest price. Producers outside the regional trading bloc would still be subject to tariff and non-tariff barriers, making them lose out to the domestic producers. The preferential treatment given to FTA members and MFN tariff rates on commodities outside the RTA provide a market advantage to the local producers. When examining the customs-union protocol, Lewis *et al.* (2001) confirmed that a common external tariff is levied on all non-RTA member countries, making them more expensive. They also emphasised that in cases where free-trade agreements and customs-union

agreements are trade diverting, the consumer welfare effects are significantly reduced, among the RTA member states and globally.

Studies by Meade (1955), as well as Kemp and Wan (1976), differ on the possibility of trade-diversion effects resulting from the customs-union. They are supported by Ohyama (1972), Amponsah (2002) and Cernat (2003), who also emphasised that trade diversion, would sometimes take place simply because the CET would be less effective to adjust the trade from non-member states to those of member states within the regional trade arrangement.

The failure of the common external tariff to divert trade is mostly witnessed in cases of trade between RTA and industrialised nations, such as China as noted by Gauto (2012). This comes about because the industrialised nations are involved in mass production. This gives them the advantages of economies-of-scale whereby, despite the levying of a common external tariff on their cost of production remains lower than that of the domestically produced goods within the RTA (Gauto 2012). This renders the CET ineffective, by not being able to divert trade. The limitation of complementary goods within the RTA produces goods that make it difficult for RTAs to divert trade and imports from the developed nations (Amponsah 2002a).

This discussion highlights the fact that when comparing trade-diversion effects, the outcome is not straightforward. It would differ from one RTA to another and from one case to another. This study therefore fills in the knowledge gaps on the determination of whether free-trade agreements signed by Kenya would actually lead to trade diversion or not. It is also important to note that regional trade arrangements and economic integration lead to static and dynamic benefits, besides trade creation and diversion effects.

4.2.3 Static and dynamic gains of regional economic integration

In the formation of the regional trading arrangements, the static and dynamic gains are fundamental aspects. Salvatore (2007) investigated the dynamic and

static gains of trade associated with regional trade arrangements. Among the benefits realised, it is necessary to include the savings arising from the administrative cost of paying customs officers for certifying the imports and exports. Here, the nation would need to verify the certificate of origin of the goods. Border patrols and scrutiny among member states of the same regional trade arrangement would be limited to illegal goods and prohibited drugs, like cocaine and heroin. This clarifies the withdrawal of tariff and non-tariff barriers among the member states, which would result in a superior division of labour subsequent to the increased production of goods and services.

The withdrawal of tariff and non-tariff barriers among the member states may lead to increased competition among different firms, from different countries, producing similar goods in the same regional trade arrangement. This would push production firms from all the involved member states to fully utilise new technology in product diversification, increasing the quantities of export, and hence growth in foreign-exchange earnings among the participating RTA member states (UNCTAD 2014).

Yarbrough and Yarbrough (2014) supported the formation of regional trade agreements, arguing that with unity, countries with less geographical space, smaller populations, and limited financial resources would be able to venture into projects they cannot handle in their individual capacities. This can be done through the ability to pool their financial resources and create a bigger market, thereby forming a substantial and critical mass of people, which brings with it the advantages of economies-of-scale among the member states. Through the formation of wider markets, like the customs-union protocol, it becomes a good avenue for attracting foreign direct investment.

The findings of the World Bank (2014) indicate that to a great extent, regional integration has managed to aid developing countries and attract bigger volumes of foreign direct investment more than they would have been able to attract if they operated independently. The nations within the COMESA regional

trade agreement are able to fully utilise the presence of twenty partner states, with a geographical area of 12,873,957 km². COMESA has a population of 389 million people with an increasing gross domestic product of US$18 billion in 2011 to approximately US$50 billion in 2015. The questions this study seeks to answer are whether Kenya has been able to make use of the advantages from the regional trade arrangement so as to expand its export volumes and achieve increased economic growth.

4.2.4   The revenue effects of trade liberalisation

In the assessment of the economic theory on trade liberalisation, opposing forces frequently appear to resurface. These comprise aspects such as a decrease in government tariff revenue, as a result of reduced import duty and the rise in revenue resulting from increments in imports, which become cheaper after tariff reduction. This presents the policy-makers with a challenge in determining the desired outcome of trade liberalisation.

Studies by Brenton *et al.* (2009), Makochekanwa (2012) and Mugano (2014) reveal that the dismantling and total withdrawal of taxes and tariffs by the third-world countries are quite risky; as it may be a recipe for serious revenue challenges. Hamilton (2009) and Wangle (2011) also emphasised that this scenario would be worsened by the fact that most developing countries have a fragile and weak domestic tax base. Tax policy instruments, such as the income tax, value-added tax, and excise are also weak and consequently unable to adequately raise revenue for the country.

Wangle (2011) explained that in the early stages, trade liberalisation would result in a loss of national income, but in the long run it would be compensated for by the country's development of its internal revenue bases.

This argument is further supported by Hamilton (2009) and Brenton *et al.* (2009) who maintained that the withdrawal of all taxes and tariffs reduces the cost of production, which ultimately is reflected in reduced prices that eventually raise the aggregate demand. Through the increased purchasing

power, the domestic sources of revenue would widen and increase revenue contribution through excise duty and value-added tax.

4.2.5   The argument on the factor of economies-of-scale

Amponsah (2002b) argued that the firms in regional trade arrangements are able to access larger markets, and hence to exploit the economies-of-scale. This provides the firms with the opportunity to exploit economies-of-scale through joint markets from different countries. Through more extensive product research, modern marketing strategies are explored.

Banerjee and Veeramani (2015) also reiterated that countries within the free trade region no longer produce for their own domestic markets; but they produce for the regional markets which would have a choice when choosing the most efficient in quality and price, according to all the producers in the RTA. They further explained that firms within the region would end up having lower costs and many advantages of economies-of-scale in their production of goods and services as they not only capture the home markets, but also the markets abroad.

A study by Brenton *et al.* (2009) showed that the regional trade arrangements are mostly aimed to bring about economic gains, although the reduction of losses due to regional integration is sometimes inevitable. This forces production firms to explore the cheapest production means that lead to the best quality to compete against their regional competitors. This eventually leads to improved consumer welfare.

Banerjee and Veeramani (2015) also argued that with regional trade arrangements, members are introduced to fierce competition and less government protection, contrary to conditions before becoming a member of the RTA. This also means previous national monopolies would be exposed to high levels of competition, thereby eroding their dominance. This would later push them to reduce their prices, increase their quality of production and carry

out more market research to maintain and improve their market share in order not to be displaced by rival firms. This works towards the improvement of the producer-welfare effect.

4.2.6 Policy implications of regional trade integration

It is important to note that regional integration is a catalyst in good public policy formation among many developing and developed nations of the world. Amponsah (2002a) argued that RTA may promote credibility in public policy, meaning that when looking for uniform policies on trade, governance and investment, it might lessen the adverse dictatorial effects of an individual country.

This implies that all the countries accept a uniform policy for all the member states as they are dealing with a larger population group (Anderson & Yotov 2015). The coming together of partner states, the adopting of uniform policies and the many other advantages of the regionalism has been instrumental in promoting political stability. Countries have shelved their greedy interests in favour of increased gains from the regional bloc.

The 2007/2008 Kenyan post-election violence showed that Kenyans live in a global society and the role of the East African Community and the African Union in resolving the civil unrest was necessary (EAC 2013). While Kenya continued experiencing civil unrest, the economic problems escalated; since the supply chain of goods from the Kenyan sea ports to Uganda were being cut off. This led to greater levels of inflation, resulting from high demand and short supply.

In 2015, the civil unrest in Burundi and the East African Community worked towards brokering a peaceful and lasting solution for the nation (EAC 2015). This confirmed that trade liberalisation and regional integration go beyond trade as they also facilitate social welfare via enhanced peace in the region.

The COMESA heads of states held several meetings and they were pushing for a common course of growth in trade volumes and regional cohesion. This also assisted the citizens, who frequently visit the COMESA member countries with the COMESA visitor's visa in every port of entry which include airports, sea ports and national entry and exit borders (COMESA 2014).

Studies by the ADB (2000) confirmed that most regional trade pacts have played a significant role beyond trade by ensuring regional peace and harmony among neighbouring countries. This consequently lessened and halted violence and bloodshed, the influx of refugees and direct security threats. De Melo and Tsikata (2015) confirmed that the levels of interaction, responsiveness and consumer welfare have risen, allowing citizens to freely move across the borders of partner states. It is also important to note that free-trade is not a guarantee for peace, but it is a key determinant to socio-cultural harmony and interstate cohesion (Kayizzi-Mugerwaet al 2014).

4.3   Empirical literature on the effects of trade liberation

The effects of trade agreements are assessed in two types of literature, namely *ex-ante* and *ex-post* techniques. The *ex-ante* technique would mainly look into assessing the effects prior to the formation of the regional trade agreement, whereas the *ex-post* studies are concerned with the assessment of the literature after the formation of the regional trade agreement (Ilzkovitz & Dierx 2015).

4.3.1 Empirical literature from the *ex-post* studies

Guei *et al.* (2015) estimated the revenue, welfare and trade effects of the European Union free-trade agreement on South Africa. They used the WITS/SMART model approach in determining the trade-creation effects, trade-diversion effects, the quantity and quality of imports and exports, the revenue and welfare effects as a result of the European Union free-trade agreement. This study found that South Africa realised total trade effects of US$1.035

billion whereby 75.44 per cent of the total trade effects comprised trade creation and 24.55 per cent was the result of trade diversion.

Upon further examination, South Africa was expected to lose revenue worth US$562 million, resulting from the free-trade agreement plus an increase in exports and imports by 0.00096 per cent and 1.34 per cent. This forced South Africa to assess the methods of shielding sensitive products form further losses and to increase the export quantities needed to improve the balance-of-payments position.

Studies by Francois and Pindyuk (2013) assessed the economic impact on Austria of three possible new EU free-trade agreements. This was mainly the EU-USA trade agreement, EU-Canada trade agreement, and the EU/Armenia/Georgia/Moldova trade agreement. According to Francois and Pindyuk (2013), the trade agreement between the EU/USA was potentially more beneficial than the two other trade agreements. This was mostly attributed to the size of the American economy, which accounted for approximately one quarter of the Austrian exports. Their overall assessment of the three agreements was positive – due to the fact that the majority of the impact resulted from the investment response. Francois and Pindyuk (2013) also realised that the productivity achievements from the trade-liberalisation policies led to a combined growth in wages, employment, capital stocks, and generally, the national income of the Austrian economy.

Studies in most developing nations on the effects of regional trade agreements in the European Union realised considerable growth of intra-European Community (EC) trade throughout the 1960s. Lessons acknowledged by Balassa (1975) recognised that the European Commission had a trade-creation effect derived from the net basis for both the new trading bloc and the rest of the world.

Balassa (1975) revealed that the portion of intra-industry trade in the European Commission trade showed sustained product differentiation, as well as complementarities of the products merchandised. The findings by Balassa (1975) also showed welfare growth of US$ 0.7 billion per annum by the European Commission, which was proportional to a 0.15 per cent growth of GDP per annum. Balassa (1975) also projected the cost of trade diversion on the European Commission's Common Agricultural Policy at US$0.4 billion per year, or even less than one tenth of one per cent of the European Commission's gross domestic product per annum.

Studies by Zepeda, Wise and Gallagher (2009), estimated the effects of the North American Free-Trade Agreement (NAFTA) on Mexico, using the WITS/SMART model. The study findings revealed that the free-trade agreement would lead to enlarged trade and possibly to a steady growth of the macro-economic climate for commerce, foreign investments and productivity. This study also realised that Mexico is expected to experience a growth in exports by 311 per cent in real terms – mostly between 1993 and 2007. It recommended that Mexico, on the strength of its macro-economic stability, would see further growth in its exports and more imports being substituted for locally produced goods and a further improvement in the balance-of-payment conditions.

Boyer and Schuschny (2008) made use of the WITS-SMART model and the GTAP computable general equilibrium model to examine the probable effects of an FTA struck between the MERCOSUR and the European Union. The MERCOSUR member states' views revealed that the free-trade agreement would be helpful in the promotion of their export volumes to the EU Markets. Imports to MERCOSUR from the European Union would be enlarged, mainly in heavy manufacturing divisions. On the other hand, gross domestic product yields would keep on being positive in the case of all the MERCOSUR states in all simulated cases.

Despite these positive results, the welfare effects were unequally spread in favour of all the MERCOSUR states in the simulated cases. Boyer and Schuschny (2008) realised the presence of a complementary trade association between these two regions.

Other studies conducted by Abdelmalki *et al.* (2007) using the WITS/SMART model, examined the influence of the free-trade agreements between the United States of America and Morocco. Their findings indicated that free-trade agreements to a great extent reduced Moroccans tariff revenues by US$147 million. It also became evident that over 60 per cent of this loss resulted from the elimination of taxes and import duties on the US cereals. The cereals were 0.5 per cent of the GDP and 4.5 per cent of the balance of payments. It is worth noting that cereals accounted for 60 per cent of the revenue shortfall. This gave meaning to the preferential treatment this commodity was granted during the negotiations.

The findings of the study showed that the consumer surplus was increased after lowering the prices of the industrialised goods. Using the partial-tariff equilibrium model, it became apparent that imports from the United States of America increased by US$53.68 million.

Bergés (2007) studied the impact of trade liberalisation on the growth and composition of the Dominican exports. The findings revealed that trade liberalisation has led export growth, as well as diversification in third-world countries. The development in the Dominican Republic had been determined mostly by American trade policy. This action suggested that most developing countries could not have an assurance of export growth without them being supplemented and supported to get easy market access to the international market.

Bergés (2007) also acknowledged that notwithstanding trade improvements, sugar was the leading primary export commodity, whereas exports from the

free-trade zones were mostly controlled by low-technology, labour-intensive textiles, manufactured exports and specific garment production.

The Economic Commission for Latin America and the Caribbean (ECLAC) (2004) assessed the fiscal effects of the FTA employed amongst the United States of America and the five Central American countries of Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua. This study showed that the adverse effects of tariff elimination on the total fiscal revenue were relatively less in Costa Rica and Nicaragua. It also revealed that the greatest influence was in Honduras, which accounted for an approximate loss of five per cent of the total tax revenue in the first year of the trade agreement.

Lewis, Robinson and Thierfelder (2001) made use of the computable equilibrium model (CGE) to examine the influence of the European Union free trade agreement on member states' economic zones and features on seven Southern African states, which included Botswana, Malawi, Mozambique South Africa, Tanzania, Zambia and Zimbabwe. The findings revealed that although it poses an imminent threat to the infant industries in SADC member states, the European Union free-trade agreement had higher trade creation effects in the selected member states.

Previous studies by Soloaga and Winters (1999) on the effects of NAFTA on its region, found that various changes in the intra-bloc trade for NAFTA had been minimally significant. Its findings also displayed that the extra trading bloc with the nations outside NAFTA and the rest of the world took place during the period that suggested the presence of trade-diversion effects.

Krueger (1999) also explored the influence of the regional trade agreements on NAFTA and established similar outcomes. Krueger's (1999) findings showed that the difference in trade among NAFTA nations was minimally significant. The author found that NAFTA member states imported less from the non-NAFTA trading states. Krueger also realised that the products that Mexico

traditionally exported to the United States of America swiftly increased in volume. These findings confirm the presence of more expansion in trade through trade creation and less through trade diversion.

Lewis *et al.* (2001) revealed that the unilateral trade agreement envisaged in the Lomé Agreement generated more gains in relation to the real GDP and absorption for SADC nation states than a SADC FTA.

Lee (2013) estimated the impact of the Free Trade Agreement between the US and South Korea (KORUS FTA) on South Korea. The author used the Computable General Equilibrium model and the WITS SMART model in the examination of the trade effects of this agreement. The findings of the study indicated that South Korea was expected to experience an economic growth of six per cent. The welfare effects and consumption spending seemed to grow proportionally with the growth of the gross domestic product in that year.

Another study by Lee (2013) assessed the trade effects of the free-trade agreement between South Korea and China, as well as that between South Korea and the European Union. The study on the Korea-EU free-trade agreement predicted an increment in the gross domestic product by 1.28 per cent with an increment in the welfare by 3.57 per cent that would have trickled down from an export growth of 6 per cent on average. The free-trade agreement between South Korea and China is expected to have a bigger economic impact than the free trade agreement between South Korea and the European Union. Lee (2013) observed that Korea-China FTA is expected to go from 2 to 4 per cent growth in the GDP and 0.64 to 3 per cent growth in the consumer welfare growth; unlike the Korea-EU agreement, which was much less than mentioned earlier. Lee (2013) further noted that the economic-simulation outcomes revealed that the Korean economy obtained meaningful gains since entering the free trade agreements with these two states.

Fukunaga and Isono (2013) also carried out a study evaluating the effects of multiple memberships on Asian countries. In their study, they took an account of ASEAN's own Free trade agreement, along with five current free trade agreements. Their main objective was to determine any possible gains realised by these free-trade agreements. Their findings revealed that the co-existence of five free trade agreements with dissimilar rules of origin (ROOs) was the recipe for a potential trade related conflict among the member states, which would eventually obstruct the gains of the free-trade agreements.

Related studies by the Asian Development Bank Institute (2011) examined the effects of bilateral trade agreements between Australia, Japan, New Zealand and Thailand, including the Association of Southeast Asian Nations (ASEAN) free-trade agreement with Thailand on the consumer-welfare effects. The findings from the WITS-SMART simulations revealed that the two cases demonstrate that amongst the bilateral free trade agreement, Thailand was the bigger beneficiary, rather than Japan, from the Economic Partnership Agreement (EPA). This is evident by the fact that its welfare is expected to rise by approximately US$1.2 billion with the zero-tariff trade regime.

On an assessment of the alternate bilateral free trade agreement settings, it was realised that the New Zealand–Thailand Comprehensive Economic Partnership Agreement (CEPA) was less beneficial to Thailand than to its trading partners; although it brought about consumer welfare effects amounting to US$11.3 million. Nevertheless, research findings by the Asian Development Bank Institute (2011) revealed that Thailand is expected to reap more benefits from the regional bilateral free-trade agreement of the Association of Southeast Asian Nations (ASEAN). This is so, particularly if the nations involved choose to make a trade pact more comprehensive and investor-friendly, as well as having reduced tax and tariffs for the citizens.

The WITS/SMART simulation approach was applied to ASEAN, and more than three other Asian countries. These included Japan, the Republic of Korea and

the people's republic of China. It was realised that China is expected to be the largest contributor to Thailand's welfare by US$26.7 billion economic welfare by 2017. However, the inclusion of South Korea to the ASEAN regional trade arrangement gives welfare gains amounting to US$ 2.6 billion.

Other related studies include work by Laery (2010) who examined the effects of the ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA) on New Zealand. The AANZFTA treaty was implemented in January 2010 and it was expected to fetch a bonus of US$48.1 billion GDP to the region in the years 2000-2020. This was expected to be distributed accordingly between countries like New Zealand, getting US$3.4 billion; Australia getting US$19.1 billion; and lastly, ASEAN getting the largest share, which was US$25.6 billion. Laery (2010) also predicted that AANZFTA would bring about a significant trade-creation effect to New Zealand, which would ultimately improve the consumer welfare effects reaching a surplus of US$50 million annually (Laery 2010).

It was noted by Laery (2010), that although trade liberalisation led to a loss in the fiscal tariff revenue, amounting to US$26.3 million, it was quite insignificant comparing its ratio to the gross domestic product and the welfare gains realised in the region.

Veeramani and Saini (2010) estimated the influence of the newly signed ASEAN-India free-trade agreement (AIFTA) for a selection of plantation commodities, which included tea, coffee, and pepper in India – using both the Gravity and the WITS-SMART model. The findings indicated that the AIFTA would lead to a significant growth in India's imports of the plantation commodities. It was evident that the growth of imports is the result of trade creation effects rather than from trade diversion (Veeramani & Saini 2010).

This examination confirmed that the anticipated tariff decrease might have led to a significant tariff revenue loss to the government (Veeramani & Saini 2010). Nonetheless, the gains in consumer surplus effects were proportionately small,

owing to the decrease in local prices and the resulting reduction in dead-weight loss that outweighed the loss in tariff revenue, translating into a net welfare gain. The findings established by the WITS/SMART model and the gravity models offered comparable outcomes on the magnitude of the aggregate growth in imports. Firstly, it was discovered that the outpouring of new imports may have had antagonistic effects on the livelihood of the Indian farmers involved in the production of these products. Veeramani and Saini (2010) suggested that the farmers would have straightened the organisational structure of their production in line with the varying price signals. This renders it critical to make available adjustment support for the affected farmers

A study by Mugano (2015b) conducted a quantitative assessment of the potential impact on revenue, trade and welfare on Zimbabwe, using the partial equilibrium model on bilateral free-trade agreements. This study noted that trade liberalisation will be beneficial for Zimbabwe in terms of exports worth US$122.433 million and consumer welfare worth US$16.689 million. However, it was also noted that the country would lose revenue amounting to US$89 million whereas imports increased owing to the trade creation effects of US$104.573 million. Mugano (2015) noted that the possible impact of trade liberalisation from this study in sensitising Zimbabwe on the implementation of BFTA's, suggesting that the government should increase revenue through alternative sources like expanding tax revenues through excise duty; value added taxes and expanding tax to small scale informal sectors.

Mugano, Brookes and Le Roux (2013) also carried out a study on the impact of the Southern African development community (SADC) on Zimbabwe. Using the WITS/SMART-model, they were able to discover trade expansion valued at US$39 million and consumer welfare of US$7 million. They further examined the impact of SADC RTA on trade and found that exports were expected to fall by 0.94 per cent while a rise in imports were anticipated to increase by 0.18 per cent - that is US$12.62 million. It is worth noting that their findings discovered the country lost revenue amounting to US$42 million.

Empirical studies by Hamilton (2009) examined the influence of a COMESA FTA on Ethiopia using the WITS-SMART model. The outcomes recommended that an abolition of all taxes and tariffs on products from COMESA free-trade agreement member states would lead to a fall in tariff income by 4.8 per cent, along with a decrease in total revenue by roughly 2.4 per cent (Hamilton 2009). The effect on import trade was expected to increase by 0.2 per cent. This is considered to be much lower and insignificant if it is only a fraction of the current year's GDP.

Another study by Hamilton (2009) estimated the short-term influence of a free trade agreement with the SADC member states on Seychelles, using the WITS-SMART model. This study assumed a scenario where all the taxes and tariffs from the SADC imports were liberalised, whereas the tariffs on imports from other trading partner states remained unaffected. The resultant effects were a 19.4 per cent decrease in tariff revenue, along with a 0.2 per cent growth in imports.

Brenton, Hoppe and Uexkull (2007) examined the possible influence of COMESA free-trade agreement on Ethiopia, Madagascar, Malawi and Zambia, using the WITS-SMART model. It was found that the effect of the COMESA FTA was quite insignificant, evidenced by the fact that all the nations were expected to lose less than one per cent of their total revenue.

Karingi *et al.* (2005) examined the possible effects of a COMESA free-trade agreement and that of a COMESA customs-union protocol through the use of the GTAP 5 database of the Global Trade Analysis Project (GTAP) model. Among the member states involved in the study were Malawi, Tanzania, Uganda, Zambia and Zimbabwe. The welfare outcomes of the COMESA customs union revealed that all the member states would be gaining in terms of real income accruing from the customs union, with Zimbabwe's real gross domestic product growing by 0.79 percentage points.

On assessing the trade ventures, Karingi *et al.* (2005) argued that the customs-union protocol would lead to substantial changes in the volume of trade. Nevertheless, the terms of trade influence of the customs-union protocol specified that only Zimbabwe lost; the other four states experienced short-term growth. Karingi *et al.* (2005) noted that the customs-union protocol held welfare gains for Zimbabwe, valued at US$10.4 million; hence, they recommended that the COMESA free-trade agreement should go ahead and implement the COMESA customs-union protocol.

Studies by Cernat (2003) made use of the gravity model to quantify the influence of nine RTAs on the trade pattern flows amongst members and the third countries in 1994 to 1998, and especially the COMESA FTA. The findings revealed a significant trade-creation effect without any trade diversion effects, along with a moderate trade-expansion outcome on the regional trade arrangements. COMESA's conclusion was that trade between countries double many times – owing to the trade-creation effects. The trade increment was also quite substantial, with imports from third-world countries growing by roughly 30 per cent on average.

McDonald and Walmsley (2008) assessed the influence of the Southern African Customs Unions (SACU) on Botswana. Their findings revealed that SACU had led to a minimal growth in the welfare, which is partly a causative factor in the developments in the allocative efficiency, as well as the positive trade effect indicators. All the noted changes were attributed to the more well-organised allocation of resources inside Botswana and changes in the values of the traded commodities.

In West Africa, Robson (1998) assessed the trade effects of the Economic Community of West African States (ECOWAS) on its members. The findings indicated that that RTA had been unsuccessful in its efforts to stimulate intra-regional trade. It also realised that despite ECOWAS being initiated in 1975, the quantity of inter-member states' trade is still less than 10 per cent of the

entire exports. In line with Robson's (1998) findings, many trade-based integration initiatives in Africa have not been successful in bringing forth a successful contribution to growth in trade and any meaningful influence to economic development.

Studies by Schiff and Winters (1998) explained that South-South regional trade agreements produce trade diversion, particularly when the Common external tariffs are high and the member states are economically weak. Cernat (2006) maintained that South-South RTAs have more trade-diversion effects than trade creation effects - more than other RTAs. Cadot, Asprilla, Gourdon, Knebel and Peters (2015) maintained that regional integration is much needed, in order to generate the required quantities that would stimulate growth by means of complementarities.

Studies in the Southern African Development Community by Forountan and Pritchet (1993) have established that the portion of the intra-regional trade in the SADC signified merely 2 per cent of its entire trade at the close of the year in 1970, whereas it has remained constant over the subsequent years. These comments show that regional trade agreements inside SADC have been unsuccessfully managed in attempts to enhance the intra-regional trade. The SADC appears to be a victim of inadequate complementarities of its trade amongst its member countries. This has constantly led to frequent problems, leading to stagnated growth within Africa and many other developing countries.

Research studies by Forountan and Pritchet (1993) also realised that many governments, particularly those in sub-Saharan Africa, followed import-substitution strategies, whereas others purposefully opened up. This led to the unbalanced spreading of costs and gains from regional integration arising from economic disparities between the partner states, which hindered any meaningful trade-integration progress among the Sub-Saharan African nations. Forountan and Pritchet (1993) further argued that among the seven or eight groups in the sub-Saharan African nations, the Southern African Customs

Union has realised a greater amount of integration in the market for products and commodities. However, intra-group trading has remained equally stagnant and constrained.

In the East African Community studies by Othieno and Shiyekwa (2011), they examined the influence of the East African Community customs-union principle of asymmetry on Uganda in respect of trade, consumer welfare and revenue effects since 2005. The outcome of the study noted that the tariff reduction had a positive influence on trade creation and the welfare effects. It was evident from the increased consumer surplus that prices decreased as a result of the tariff reduction. This also implies that the Ugandan government was expected to lose revenue, adding to the diversion effect that may have been caused by the Common External Tariff (CET) on interrelated commodities, like woven cotton fabric, soap products, paints and varnish.

The expected losses would have come from the less-competent producers and suppliers, who were displaced in the market by superior producers in the East African region.

Hamilton (2009) also made use of the WITS/SMART model and the TRIST model to test the hypothesis of a possible comprehensive tariff liberalisation on imports coming from the East African Community member states on Burundi. It was found that the short-term effect of this restructuring is anticipated to take in revenue losses to the value of 8.1 per cent of total tariff revenue and 3.4 per cent of the total revenue. It also confirmed that the quantity of imports was expected to grow by a 0.5 per cent margin.

4.3.2 Empirical literature from *ex-ante* studies

The *ex-ante* technique mainly looked into assessing the effects prior to the formation of the regional trade agreement (Ilzkovitz & Dierx 2015). Examples of such studies are described below.

Studies by Onogwu and Arene (2013) from Central Africa examined the effects of tariff removal by Burkina Faso on European Union imports under the Economic Partnership Agreements, bearing in mind the revenue and welfare implications. The outcome indicated that the comprehensive abolition of tariffs and taxes brings about fewer welfare benefits in relation to the gross domestic product, but possible tax revenue losses, as well as improved trade creation.

Other studies by Onogwu and Arene (2013) explored the possible trade, revenue and welfare effects for Cape Verde in free-trade Economic-Partnership Agreements (EPAs) with the European Union, by using the partial equilibrium-analysis method. Their findings indicated that Cape Verde is expected to lose more than 35 per cent of its entire revenues, owing to the removal of tariffs and taxes on imports coming from the European Union. It was also revealed that Cape Verde would be expected to receive more European Union imports; mainly because of the trade creation, trade diversion and consumer-welfare effects, whereas the tariff revenue would fall, due to the rise in the zero-tariff initiative that promotes the access of European Union imports to Cape Verde.

Bilal, Dalleau and Lui (2012) estimated the influence of the Economic Partnership Agreement on selected States in West Africa, Eastern and Southern Africa (ESA). They found that eight of the countries in West Africa, which included Benin, Cape Verde, Comoros, Djibouti, Gambia, Ghana, Guinea Bissau and Togo, were likely to suffer significantly due to losses in their tariff revenues estimated at a 6 per cent decrease in total tax returns, rising to 43 per cent in the East and South African region.

Bilal *et al.* (2012) realised that the effects on total fiscal revenue were quite small, whereas in seven States, namely Botswana, Lesotho, Malawi, Nigeria, Namibia, Swaziland and Zambia, these were anticipated to have relatively low effects.

In Burundi, Hamilton (2009) examined the economic partnership agreement (EPAs) scenario. This allowed for the omission of some commodities from liberalisation. The assumption was that all the tariff lines are liberalised, except for a list of the most revenue-sensitive commodities. These commodities would represent less than 20 per cent of the overall total trade with the European Union. These findings revealed that tariff revenues would be decreasing by 12 per cent and the total revenue by 5.1 per cent. Hamilton (2009) also realised that minor changes should be anticipated in the volume of imports. This represented a 0.8 per cent drop in the import-weighted collected tariff rate from 12.1 per cent to 10.5 per cent.

Hamilton (2009) also examined the impact of a complete trade agreement with the European Union for Malawi without the elimination of any sensitive products and commodities. This model expected a growth in the volume of imports by roughly 0.2 per cent and a decrease in total revenues from 7.5 per cent down by 2.4 per cent. The exemption of up to 20 per cent of Malawi's total imports, which are mostly revenue-sensitive products from the European Union included tariff liberalisation protocols. The model projected a probable non-existent revenue effect from the Economic Partnership Agreement if the goods and products on the omission list, defined above, are eliminated from liberalisation benefits. Specifically, this case was expected to lead to nearly no changes in the revenues or volume of imports.

Assuming that the elimination list is intended to reduce the effects of the trade agreement on the quantity of revenue, it is obvious that the list of sensitive products prepared by Malawi revenue officials was not revenue-sensitive.

Contrary to the study on Kenya, Malawi's scenario involved an indemnity of 20 per cent for the listed sensitive products from the economic partnership. These were expected to significantly impact the quantity of revenue. Hence, Kenya could project a decrease in tariff revenue of 5.7 per cent and a drop of 1.5 per cent in its overall trade revenues. Hamilton (2009) noted that the revenue

losses realised were significantly less than those anticipated under the economic partnership agreement – minus the elimination list.

The research studies by Zgovu and Kweka (2009) examined the impact of the European Union free-trade agreement in Malawi and Tanzania with the use of the WITS-SMART model and the partial equilibrium model. They were able to show that the Tanzanian imports could be expected to grow, as a result of adopting the European Union free-trade agreement protocol. Tanzania expected a growth rate of 1 per cent; whereas Malawi expected a growth rate of 6 per cent. Both countries, Tanzania and Malawi, were expected to have less significant welfare gains and revenue losses of 52 per cent and 21 per cent for Tanzania and Malawi, respectively.

A study on the influence of the EPAs on the quantity of revenue in East and Southern African member states conducted by Oxfam (2006) revealed that all seven Eastern and Southern African member states would probably lose revenue if they complied with the Economic Partnership Agreements. Among the countries mostly affected were the Democratic Republic of Congo, that suffered a loss of US$24.692 million, Madagascar US$7.712 million, Malawi US$7.09 million, Mauritius US$71.118 million, Seychelles US$24.894 million, Zambia US$15.844 million, and lastly, Zimbabwe US$18.431 million.

Studies by Zgovu and Milner (2007) provided a comprehensive analysis of the trade and welfare implications of unilateral trade within the European Union context of the various non-agricultural products on Tanzania. They found that an East African Community and Economic Partnership Agreement would lead to increased imports into Tanzania from the European Union by roughly 84 per cent. They also realised that the total tariff revenue would most probably decrease by 54 per cent, which was the equivalent of 35.659 million Tanzania Shillings in terms of the anticipated welfare gains.

Hallaert (2007) assessed the effect of the European Union free-trade agreement on Madagascar. The findings of this study showed that Madagascar would most probably experience a rise in imports from the European Union by roughly 3.8 per cent, resulting from the increase in market access. The European Union would probably expand its export volumes from Madagascar by roughly 4.9 per cent resulting from the trade-creation.

Hess and Cramon-Taubadel (2007) estimated the effects of the finished policy decision of the Doha Round on global welfare, making use of the partial equilibrium and the Computable general equilibrium models (CGE). This was based on the data findings derived from 110 nations and States. It was noted in this study that Zimbabwe was analysed as a sub-Saharan region. They realised that the trade liberalisation arrangement under the World trade organisation structure would facilitate growth in global welfare by roughly US$2.5 trillion.

Lang (2006) estimated the effects of Economic Partnership Agreements on ECOWAS. The findings of Lang's study (2006) were that the volumes of imports from the European Union to ECOWAS states would grow by roughly US$1.87 billion, after the execution of the Economic Partnership Agreements. It was also noted that the United Kingdom and France would be the key beneficiaries from the European Union member states, which was also confirmed by related studies that obtained related results. Ghana and Nigeria were seen to be the biggest participants within the ECOWAS, as they expected to use as much as two thirds of the growing imports from the European Union.

Lang (2006) also noted that the trade-creation effects represented 81 per cent of the entire trade effects. This means that the trade-diversion effects amounted to 19 per cent of the total trade effects. It was also clear that gains resulting from the trade-creation effects were skewed towards Ghana and Nigeria. Lang's (2006) study further mentioned that the trade-creation effects were well distributed across a large variety and diversity of products; although the concentration was largely on cars, clothing, oil products and medicines.

The trade-diversion effects appeared to be comparatively significant at 7 per cent. This revealed that intra-regional trade diversion had a negative effect on regional integration, which stood at -6.7 per cent. This study clearly revealed that the two principles of reciprocity and that of deeper regional integration applied by ECOWAS were not likely to work together.

On the effect of Economic partnership agreement on government revenues, Lang stated that Ghana, as well as Guinea-Bissau, were the most affected. Nigeria experienced the greatest loss in absolute terms. This was after Guinea Bissau and Ghana incurred losses up to more than 20 per cent of their National government budget in the case of the full liberalisation of the European Union imports. Lang's study on the European Union –ECOWAS free-trade agreement through EPAs left the outcomes incomplete, due to concerns on the welfare gains. It seemed that the consumer surplus would mainly be developed through the reduction of costs of the industrial goods, such as equipment, machines and cars.

Cox and Harris (1985) also examined the welfare effects of the Canada–United States Free Trade Agreement. The outcomes revealed that the welfare effects were anticipated to be positive for Canada at approximately 8.5 per cent of the gross domestic product per annum. The welfare effects however, were negligible for the United States of America – owing to the large size of its economy. Cox and Harris (1985) maintained that scale economies would lead to much growth in terms of their gains from trade. It was also expected that an increase in the bilateral trade and a decrease in trade from areas out of the FTA could be expected.

A study by Busse,Bormann & Gromann,(2004) examined the possible effects of the European Union free trade agreement on the ECOWAS Countries. The outcome of the study revealed that most member states in the ECOWAS regional trade arrangement were likely to experience losses in welfare gains due to the trade-diversion effects. It was noted that the welfare losses would

mostly affect Nigeria and Ghana, whereas the import tariff-revenue losses were likely to affect Cape Verde and Gambia the most.

Studies by Tekere and Ndlela (2003) assessed the influence of the Economic Partnership Agreement on Southern African Development Community member states, using the Partial-equilibrium method of analysis. Their findings indicated that the implementation of the economic partnership agreement with the European Union would cause a considerable revenue effect in import tariffs. It further revealed that the total revenue collected from import duty revenues in Namibia were expected to fall by 24 per cent whereas Tanzania was expected to fall by 37 per cent.

A study carried out in China by Zhai (2006) estimated the influence of preferential trade agreements on China within the WTO framework. The outcomes indicated that China projected a growth in its GDP of roughly 0.06 per cent due to the increased efficiency resulting from the withdrawal of tariff and non-tariff barriers. They also realised that trade liberalisation could lead to growth in export and import quantities of 5.73 per cent and 7.26 per cent, respectively. Zhai (2006) also anticipated that trade liberalisation would possibly lead to growth in the foreign-direct investment (FDI) in real terms by 1.59 per cent; this would most probably lead to employment creation by 0.18 per cent.

Other studies by De Rosa (1995), Lewis, Robinson & Thierfelder (2001) examined the effect on trade creation in the ASEAN member countries. These two studies found ASEAN's contribution to the economic welfare effects of all its members to be quite insignificant. It was confirmed by the welfare gains ranging between 0.25 and 0.50 per cent of the gross domestic product per annum, but without factoring in the largest economies, which are Malaysia at 1.30 per cent of the GDP per annum, and Singapore at more than 3.50 per cent of annual GDP. These two member states supplied the largest share of the increased intra-regional demand that was initially supplied by nations outside

the FTA region. A modest negative impact on the non-member states was realised from these two countries.

A study by Makochekanwa (2012) estimated the probable influence of the SADC/COMESA/EAC tripartite agreement on the 26 nations. This study mainly looked at the effects of total or complete liberation on trade creation, trade diversion and welfare effects by using the WITS/SMART model. Its outcomes were that the 26-bloc member states would realise a trade-creation benefit valued at roughly US$2 billion, due to the enactment of the free-trade agreement. Nations, like Angola and the Democratic Republic of Congo were to gain the biggest share of the trade-creation effects, amounting to almost 60 per cent of the total trade created. Angola would receive US$384 million and the Democratic Republic of Congo US$783 million.

Their view was that the dominance of these states as leaders should not be a surprise since they do not take part in any of the free trade agreements presently available. An example in the SADC is the DRC, which did not participate in the COMESA free-trade agreement. This means that tariff liberalisation should come as a result of the tripartite free-trade agreement. It would basically mean a massive reduction of taxes and tariffs in these two states, thereby encouraging more imports from free-trade agreement countries into Angola and the Democratic Republic of Congo.

Makochekanwa (2012) established that total trade liberalisation under the SADC/COMESA/EAC tripartite agreement would mainly lead to a probable US$1 billion loss in customs revenues and import duty revenues for all the member states involved. The member states most likely to be affected by the high revenue losses would be countries like the Democratic Republic of Congo, having a loss estimated at US$214 million, which amounts to 21.4 per cent of the loss. Kenya would be expected to have a loss of US$211, which is 21 per cent of the total loss. Angola should experience a loss of $160.6 million, which amounts to 16 per cent; Tanzania would have a loss of $72.5 million, which is

7.2 per cent of the loss, and lastly, Zimbabwe should expect a loss of $71.2 million or 7.1 per cent of the total loss.

This study further found that the five states would have a joint revenue loss of $729.6 million; 73 per cent of the entire tripartite revenue. According to Makochekanwa (2012), nations, such as Botswana, Eritrea, Lesotho, Mauritius, Namibia and Swaziland experienced low levels of revenue loss. It became evident that these member states had already liberalised their economies. This meant that the tripartite agreement would have little or no effect on their revenues.

Makochekanwa (2012) also anticipated a welfare effect of roughly $205.5 million for the 26 countries in the tripartite agreement. These gains came from the circumstances where consumers in the tripartite member states would be procuring goods at comparatively lower prices, resulting from the reduced import duties. Furthermore, they would possibly have access to implicit gains resulting from the many different choices brought by many imports from the different nations before the free-trade agreement came into effect.

Othieno and Shinyekwa (2011) in East Africa explored the effects of the East African Customs Union on Kenya by means of the WITS/SMART model. They realised that the effects on trade are reflected more in the first term of a fully-fledged East African customs Union. Here, all the tariff lines of the products are zero per cent, excluding the products that do not meet the original criteria. The findings seem to suggest that the trade created was expected to rise by 513.3 per cent, leading to a total trade creation of US$17.3 million. The trade diversion effects were evidently products, such as chewing gum, base metal items, iron and steel, woven fabrics of cotton, paints and varnishes, soap products, cement and aluminium. This served as a confirmation that the listed products were the only ones that were able to compete with imports originating from states outside the EAC Custom-Union markets.

Othieno and Shinyekwa (2011) stated that a decrease in the tariff by roughly 2 per cent on imports from Kenya led to a loss in total tariff revenue. These outcomes further showed that the welfare effects would be more beneficial, besides being significant, if the tariff and tax lines on all the products were zero. This would amount to US$507,801 worth of consumer surplus. A negative value in the welfare result was anticipated in Uganda owing to its preliminary application of an MFN tariff structure. The MFN tariffs were much lower than the transitional tariff and the EACCU common external tariff, as was explained earlier.

McKay *et al.* (2005) examined the possible establishment of an economic-partnership agreement between the European Union and the three East African Community member states of Kenya, Uganda and Tanzania. It was realised that if the partnership and a free-trading zone were established, there would be a likelihood of them suffering huge revenue losses. These findings indicated that Uganda would most probably experience the highest welfare gains; whereas Kenya should expect to lose some of its share in Ugandan and Tanzanian markets.

Studies by McIntyre (2005) evaluated the impact of the East African Community Common external tariff on its member states. The findings indicated a possible growth in trade by US$193.5 million, along with a trade-creation effect anticipated to amount to US$193.9 million, as well as a trade-diversion effect estimated at US$0.3 million. The WITS-SMART model simulations projected that a comprehensive implementation of the East African Community customs-union tariffs would lead to customs revenue losses of as much as US$113.3 million.

A study by Castro *et al*. (2004) examined the trade and revenue effects of the East African Community customs-union protocol, with the use of the partial equilibrium models, using data from 2012. The uniqueness of this study was that it was conducted before the enactment of the customs-union protocol. Its

main aim was to predict the anticipated changes in the trade and import flows from Kenya, Uganda and Tanzania – especially after the enactment of the East African Community customs-union protocol.

This study assessed the recommended phase-by-phase internal tariff framework, where Uganda and Tanzania would retain their tariffs on selected imports of Kenyan products. The findings of this study suggest that there would be a slight growth in regional trade-pattern flows. A growth in third-world nation imports for Tanzania and Kenya, along with a decrease in third-world country imports from Uganda. This study was also able to determine that the customs-union protocol would eventually lead to a growth in consumer and producers' welfare in the Tanzanian and Kenyan economies – owing to a decrease in import prices.

The determination of Uganda's trade features was that they would experience more costly imports. This meant that the whole region would be experiencing a slight decline in the customs revenue.

Another study by Hamilton (2009) estimated the influence of the Economic Partnership Agreements on Kenya's revenue. In this study, the assumption was that there would be complete trade liberalisation under the Economic Partnership Agreement on the revenues from Kenya's trade. Hamilton (2009) anticipated a fall in the tariff revenue by more than 20 per cent in the short-run. This would lead to an overall decrease in trade revenues of roughly 5.8 per cent. The quantity of imports was projected to increase marginally by 0.4 per cent.

This study was very specific on the revenue effects, quite apart from aspects such as trade creation, trade diversion, consumer welfare and the influence of exports in trade. The study failed to compare its impact against other trade agreements into which Kenya had entered, such as the COMESA, WTO and BFTAs, which this current study aims to achieve.

Studies conducted by Ronge (2006) sought to determine the composition of Kenya's agricultural export trade to the European Union, since the Lomé-Cotonou agreements. It also compared the export performance of commodities from the protected products under the Common Agricultural Policy (CAP) and the commodities of interest to Kenya. This also included tariff composition, non-tariff barriers and the implications of the EPA, as well as the negotiation position. Ronge (2006) found that despite the signing of the free-trade agreement, there existed many non-tariff barriers that still hindered free trade. The Tariff phase-down period was considered inadequate to comprehensively consolidate the gains of regional integration. This study recommended that the European Union Tariff liberalisation should be adjusted to allow for unrestricted access for all Kenyan products to the EU market, and the Tariff phase-down period for Kenya should be adequately adjusted to give enough time for the consolidation of gains from regional integration.

Ronge (2006) examined the various agricultural goods and aspects of the volumes and the terms of trade of agricultural products. Ronge (2006) did not look into trade creation, trade diversion, revenue, or the welfare effects resulting from EPA. Ronge (2006) overlooked the non-agricultural exports, which will be dealt with in this current study.

From the on-going discussion a number of studies were carried out and in many cases, these have been examined by using the WITS/SMART model when assessing the various trade effects on several member states. Previous studies illustrated that the industrialised countries and the emerging markets significantly gained from trade liberalisation. This has been necessitated by the high degree of complementarities in traded commodities. It has also led to growth in the intra-regional trade which has stimulated economic growth. However, the evidence from the third-world countries, which include COMESA, EAC, ECOWAS and SADC, have displayed inadequate complementarities, poor infrastructure and weak supply that appear to be a major hindrance to the nations for gaining significantly from the trade-liberalisation framework.

Although there is a significant confirmation of trade liberalisation in a number of African states, the results and outcomes from one nation to another have varied greatly. These disparities are prompted by the differences in foreign policies, economic structures, and economic geography of the various nations. This leads to the conclusion that trade-policy reforms by the various nations can be used as a standard measure or a bench-mark to assess the impact of trade policy reforms on Kenya, and especially on trade liberalisation. This necessitates a study to assess the impact of trade policies on Kenya, as this is the main aim and objective of this study.

The above discussion makes it clear that the impact of customs-union agreements and free-trade agreements on exports, imports, and revenue, as well as welfare effects are quite ambiguous from a theoretical point of view. Several theoretical areas contribute to the significant effects and essential guiding principles, but minimal or no overall conclusions can be drawn from the theory only.

This, consequently, means that the queries on whether or not the enactment of the customs-union protocol helps in increasing the welfare effects is primarily an empirical question that can best be researched by using the specific data from the COMESA Customs Union in this study.

The researcher, through this study, envisages making a contribution to narrow the existent gaps in assessing the COMESA Customs-union protocol and the free-trade agreements from the EPA, the WTO, the BFTAs and the COMESA FTAs. Thereafter, to perform a comparative analysis of which of these trade agreements would Kenya gain from, and which would incur the most losses. Another aspect of the research is to determine what Kenya should do to improve its trade conditions in terms of trade creation, trade diversion, revenue, welfare and its effects on exports and imports. This should be of benefit to the policy-makers in Kenya, related countries and various stakeholders in international trade and policies.

With specific reference to Kenya, few studies were carried out by Ronge (2006) and Karingi *et al.* (2005). These studies did not adequately address effects of trade liberalisation in Kenya, hence the need for a new study. The empirical literature review in this study showed that WITS/SMART model was regularly used to test trade, revenue and welfare effects of trade liberalisation; hence the application of the same methodology in this current study.

4.4   Summary

This chapter examined the theoretical and empirical literature on trade liberalisation. In respect of evaluating the theoretical literature, this study examined trade creation, trade diversion, the static and dynamic gains of regional economic integration, and the revenue effects of trade liberalisation. The argument on the economies-of-scale factor and the policy implications of regional trade integration were also investigated. The empirical literature assessed the two approaches and techniques on the effects of regional trade agreements. The *ex-ante* technique examined the studies done prior to the formation of the economic blocs; whereas the *ex-post* studies scrutinised the influence of the regional trade agreements with the assistance of a simple investigation that examines the intra-regional trade-pattern flows after the formation of the regional trade agreements.

The assessment of empirical literature on the effects of trade liberation entailed an examination of existent related studies on trade liberalisation. This was mainly aimed at providing insight into the frameworks necessary in addressing the core-objectives. In this regard, it was possible to study and analyse the methodologies applied in previous studies concerning the knowledge gap in respect of the effects of trade liberalisation. This was instrumental in determining the robust analytical instruments and tools necessary to achieve the objectives of this study.

The findings from the related studies on the effects of trade liberalisation on trade aspects, such as the quantity of exports, imports, trade creation, trade

diversion, welfare and revenue effects have shown varying outcomes from one country to another and one case to another. This emphasises the fact that the findings from different studies cannot be generalised for Kenya. This also justifies the need to carry out this study as it should be able to highlight the unique features on the impact of trade liberalisation and policy changes on Kenya's trading regimes.

Through the review of the related literature, it was noted that the WITS-SMART model approach has been used in numerous cases in assessing the impact of trade policy on trade variables and other aspects. This afforded the researcher the opportunity to confirm that the WITS-SMART model approach had been tested in various cases and provided credible results to use in policy-making for a nation. Upon investigation, the researcher found that no previous study using the WITS-SMART model was undertaken to assess the trade liberalisation influences on Kenya with EU FTA, BFTA and WTO FTA COMESA, FTA, specifically on trade creation, trade diversion, exports, imports, revenue and welfare during the period 2010 to 2015. This convinced the researcher of a knowledge gap that needed to be filled through this study.

The next chapters of this study present the WITS-SMART model specification-estimation procedures that were applied in examining the impact of trade liberalisation on Kenya.

CHAPTER FIVE

THE RESEARCH METHODOLOGY

5.1   Introduction

This chapter principally discusses the methodology and estimation techniques used in estimating and analysing the effects of trade liberalisation on Kenya. Estimating and analysing the effects of trade liberalisation on Kenya is the primary objective of this research. To be more specific, this study is designed to analyse the effect of the different trade policies on trade creation and trade diversion, exports and imports, revenues, and the welfare implications thereof. The partial-equilibrium model and the World-Integrated Trade-Solutions/ Software for Market Analysis and Restrictions on Trade (WITS/SMART) were applied to compute the effect of trade-policy liberalisation on Kenya.

This chapter follows the procedure, as stated in this section. Section 5.2 analyses the partial-equilibrium model. The effects of Kenya's trade-liberalisation experience on imports, exports, trade creation, tariff revenue, and diversion, and welfare, which are the objectives of the study, are estimated by using the WITS/SMART model. Section 5.3 discusses the detailed WITS/SMART model. Section 5.4 summarises this chapter.

5.2   The development of the Partial-Equilibrium Model

The Partial-equilibrium model (PEM) was developed by Panagariya (2000). The works of Panagariya on the partial-equilibrium analysis were further extended and elaborately explained by Milner, Morrissey and McKay (2005). Partial-equilibrium models are quantitative methods used to simulate and calculate the impacts of changes in trade policy. The partial-equilibrium paradigm contains features that are related to a static partial-equilibrium analysis. These features can be used to estimate the impacts of certain changes in tariffs on trade flows, revenue, and welfare impacts at any given time. Partial-equilibrium paradigms appraise the policy-reform effects on sectors that are directly affected, commonly called first-round effects.

Partial-equilibrium paradigms or models give a detailed product-by-product breakdown of the comprehensive impact; they are quite easy to set up and implement as noted by Mugano (2015b). The other merits of partial-equilibrium paradigms are that they use minimal data in their computations. This is because the PEM only needs the data on trade flows, tariffs, and elasticities (Francois & Hall 1997).

Partial-equilibrium paradigms also have some demerits. Firstly, PE models are static in nature; they employ only a comparative static analytical method of pre- and post-policy changes. The method assumes that all the other variables can be assumed to be constant, even though this is an over simplification of the real world (Fukunaga & Isono 2013). As a result, the partial-equilibrium model ignores the second-round impacts. The models also fail to take into account the effects of the policy reforms at the macro-economic level, as well as the inter-sectorial implications and the exchange-rate impacts of such changes (Veeramani 2012).

The purpose of this study is to evaluate the static effects of trade liberalisation on Kenya. This implies that the demerits of the P.E model are invalid because this study does not need the second round effects.

Studies requiring analysis of second round effects use the general-equilibrium model (GEM) has the capacity to capture dynamic linkages and market feedbacks. The GEM, therefore, performs better when dynamic impacts and market linkages are seen to be important determinants of the outcome.

The General-equilibrium model is also not immune to criticisms. GE paradigms are criticised, since they are susceptible to aggregate bias (Bilal, Dalleau & Lui 2012). They work, based on a number of assumptions and they have many data requirements, among other problems. The commonly used general-equilibrium analysis paradigms and the database for analysing trade-policy changes are: the Global Trade Analysis Project (GTAP), however, this does not

have disaggregated data for the majority of African countries, including Kenya (Onogwu & Arene 2013). Few of the African countries are analysed as individual countries, while the majority of African countries are presented as composite countries - for instance, the rest of Sub-Saharan Africa (Fukunaga & Isono 2013; Veeramani 2012; Francois & Pindyuk 2013; Makochekanwa 2012; Lee 2013).

In this study, based on the data available, the main focus will be on the static effects of trade liberalisation. In this thesis, partial-equilibrium models are taken as the best available options. The partial-equilibrium technique is taken to be an adequate tool for addressing the principle of special and differentiated treatment (S&D) in a detailed analysis of the trade data. The extant literature has demonstrated that the partial-equilibrium method, mainly the World-Integrated Trade Solution (WITS/SMART) paradigm, has been extensively and successfully employed to estimate the static effects of various FTA and customs unions.

This study has applied the World-Integrated Trade Solutions/Software for Market Analysis and Restrictions on Trade (WITS/SMART) model, due to its ability in computing the tariff effect of a single market on disaggregated product lines (Balassa 1975; Karingi *et al.* 2005, 2011; Fukunaga & Isono 2013; Lee 2013; Veeramani 2012; Francois & Pindyuk 2013; Makochekanwa 2012; Bilal, Dalleau & Lui 2012; Onogwu & Arene 2013); Mugano 2014a, 2015b).

Othieno and Shinyekwa (2011) claimed that the model also has the strength to explain the impacts of trade-regime reforms in the presence of imperfect substitutes. Unlike GE, the WITS/SMART model is more satisfactory than homogeneous goods models, when analysing the tariff preferences (Othieno & Shinyekwa (2011) pointed out.

5.2.1 Market analysis and restrictions on trade (SMART) Partial-Equilibrium model software

This study applied the World Integrated Trade Solution (WITS) and SMART models in a partial-equilibrium framework. The WITS integrates various databases, starting with bilateral trade, commodity-trade flows, and it proceeds to several of types of trade protection (Lang 2006). Lang (2006) explained that the WITS/SMART model applied the Common Format for Transient-Data Exchange (COMTRADE), which is the acronym for commodity-trade statistics; Trade Analysis Information systems TRAINS-tariff; Para-tariffs and non-tariff measures; Integrated-Data Base (IDB) and Consolidated-Tariff Schedules (CTs) databases that provide simulated analytical tools to simulate-trade policy analysis, such as the impacts of multilateral-tariff cuts, free-trade agreements, preferential-trade liberalisation and ad hoc tariff changes (Lang 2006).

As Lang (2006), Plummer *et al* (2010) and Othieno and Shinyekwa (2011) posited, the SMART paradigm runs on information contained in the UNCTAD-managed TRAINS database. SMART, therefore, applies TRAINS data for tariff (applied tariffs) and the trade information stored in the COMTRADE database for simulation purposes.

As Mugano (2013c) pointed out, the partial-equilibrium SMART model was developed by UNCTAD and the World Bank in the 1980s, to use in assessing the effect of GATT rounds. The SMART paradigm is one of the software programs found in the World-Integrated Trade Solution software (WITS) (Lang, 2006). SMART model and the simulation techniques are part of the WITS trade database and software suite provided jointly by the World Bank and the United Nations Conference on Trade and Development (Plummer *et al* 2010).

The working principle of the model is derived from Laird and Yeats (1986). SMART has the capability to compute the impact of a given trade regime change (measured in tariff) on the variables that are listed in this section, that comprise the rationale for this study:

Trade-creation impacts

Trade-diversion impacts

Net-trade impact (aggregate-trade creation and trade-diversion impacts)

Tariff-revenue changes, and

Variations in consumer surpluses.

Trade Creation

Laird and Yeats (1986) explained the WITS/SMART theory used in this study. Laird and Yeats, stated that trade creation contains the trade impacts of liberalisation that cause the elimination of inefficient producers in a certain preferential trade area (FTA, for example). Before trade creation can take place, it is taken for granted that there is a full transmission of price changes when tariffs or non-tariff barriers (NTBs like ad valorem equivalents) are disbanded. This study applied equation 5.1.1, which was adopted from Laird and Yeats (1986) to compute trade-creation impacts. Before creating the trade-creation model, import demand and export-supply functions and an equilibrating identity should be formulated.

For the purpose of this research, the import-demand functions for country j, refer to Kenya, from commodity i supplier, in country k can be expressed thus:

$$M_{ijk} = f(Y_j, P_{ij}, P_{ik}). \tag{5.1.1}$$

Equation 5.1.1 states that import depends on the output produced and the prices in the importing and exporting countries. The counterpart-export function can be stated as:

$$X_{ijk} = f(P_{ijk}). \tag{5.1.2}$$

The trade equilibrium of two countries in a partial-equilibrium model can be presented as shown in equation 5.1.3 below.

$$M_{ijk} = X_{ijk}. \tag{5.1.3}$$

Given that a free trade and customs-union situation exists, the domestic price of commodity i in country j (in this case Kenya) from country k would vary with the variations in an ad valorem tariff, as shown below:

$$\text{M}_{\text{ijk}} = X_{ijk}\left(1 + t_{ijk}\right). \tag{5.1.4}$$

The export revenues that country k obtains are expressed in equation 5.1.5 below:

$$\text{R}_{\text{ijk}} = X_{ijk}.\,\text{P}_{\text{ijk}}. \tag{5.1.5}$$

The Trade-creation model, as Laird and Yeats (1986) presented it is done through the total derivation of equation 5.1.4, as shown in equation 5.1.6.

$$\text{dP}_{\text{ijk}} = \text{P}_{\text{ijk}}.\,\text{dt}_{\text{ijk}} + \left(1 + \text{t}_{\text{ijk}}\right).\,\text{dp}_{\text{ijk}}. \tag{5.1.6}$$

The elasticity of import demand with regard to the domestic price can be rearranged, as in equation 5.1.7 below.

$$\frac{\text{dM}_{\text{ijk}}}{\text{M}_{\text{ijk}}} = Em\left(\frac{\text{dp}_{\text{ijk}}}{\text{p}_{\text{ijk}}}\right). \tag{5.1.7}$$

When the expressions in equations 5.1.4 and 5.1.6 are substituted into equation 5.1.7, equation 5.1.8 is obtained.

$$\frac{\text{dM}_{\text{ijk}}}{\text{M}_{\text{ijk}}} = Em\left[\left(\frac{\text{dt}_{\text{ijk}}}{1+\text{t}_{\text{ijk}}}\right) + \frac{\text{dp}_{\text{ijk}}}{\text{p}_{\text{ijk}}}\right]. \tag{5.1.8}$$

The world-price elasticity of export supply can be stated, as shown in equation 5.1.9.

$$\frac{\text{dp}_{\text{ijk}}}{\text{p}_{\text{ijk}}} = \frac{\text{dX}_{\text{ijk}}}{\text{X}_{\text{ijk}}} \div EX = \frac{\text{dX}_{\text{ijk}}}{(\text{X}_{\text{ijk}}).\text{EX}}. \tag{5.1.9}$$

Using equation 5.1.8 to transform equation 5.1.9, equation 5.1.10 is obtained.

$$\frac{\text{dM}_{\text{ijk}}}{\text{M}_{\text{ijk}}} = \frac{\text{dX}_{\text{ijk}}}{\text{X}_{\text{ijk}}}. \tag{5.1.10}$$

Finally, trade-creation impacts are created by substituting equation 5.1.10 into 5.1.9, and the result is also substituted into 5.1.8. This result is tantamount to exporting country, k's growth of exports of commodity i to country j. The equation for trade creation can then be expressed as in equation 5.1.11.

$$TC_{ijk} = M_{ijk} \cdot E_X \cdot \frac{dt_{ijk}}{(1+t_{ijk})(1+\frac{E_m}{E_X})}$$
(5.1.11)

Trade Diversion

Trade diversion is an incident that usually happens in a free-trade area. This is where competent producers outside the Free-Trade Arrangements or customs union are displaced by less competent producers, who are protected by the high tariff rate. The COMESA FTA is used to show how trade diversion is evaluated in this study. Trade diversion would be the outcome if, as a result of setting up the EAC FTA, more suppliers from the rest of the world (ROW) into Kenya are displaced by inefficient producers from Kenya.

The creation of COMESA FTA causes a reduction of tariffs to zero to COMESA member States – without any changes in the tariffs facing the ROW exporters. The principle underlying the measurement of trade diversion in SMART is also explained by Laird and Yeats (1986). This study considers the elasticity of substitution in order to derive trade diversion. The elasticity of substitution estimated in this study is expressed as a percentage of a change in the relative shares of imports from two different sources, due to a one per cent change in the relative prices of the same product from these two sources:

$$TD_{ijk} = \frac{M_{ijk}}{\sum M_{ijk}} \sum M_{ijk} \sum M_{ijk} E_s \frac{d\frac{M_{ijk} \cdot P_{ijk}}{M_{ijk} \cdot P_{ijk}}}{M_{ijk} M_{jk} M_{ijk} \cdot \frac{M_{ijk}}{P_{ijk}}}$$
(5.1.12)

Trade Expansion

In order to derive the total-trade effect, trade creation and diversion are summed up (Laird & Yeats 1986). Laird and Yeats (1986) stated that it is plausible to sum the results across a group of importers for single or groups of products, as well as for single sources of supply or groups of suppliers.

The Revenue Effect

In principle, the tariff revenue is calculated as the product of the tariff rate in this case) and the tax base (the value of imports). Thus, before the change in the ad valorem incidence of the trade barriers, the revenue is given as:

$$dR_{ijk} = P_{ijk}(dX_{ijk}) + (X_{ijk})dP_{ijk} \qquad (5.1.13)$$

When the Left-hand side (LHS) of equation (5.1.13 is divided by dR_{ijk} and the right-hand side (RHS) of the same equation by $X_{ijk}(P_{ijk})$ gives equation 5.1.14.

$$\frac{dR_{ijk}}{R_{ijk}} = \left(\frac{P_{ijk}(dX_{ijk}) + X_{ijk}(dP_{ijk})}{P_{ijk}(X_{ijk})}\right) \qquad (5.1.14)$$

Simplifying and substituting the expression in equation (5.1.10) results in equation 5.1.15.

$$\frac{dR_{ijk}}{R_{ijk}} = \frac{dM_{ijk}}{M_{ijl}} + \frac{dP_{ijk}}{P_{ijk}}. \qquad (5.1.15)$$

Alternatively, this can be written:

$$\frac{dR_{ijk}}{R_{ijk}} = \left(\frac{dt_{ijk}}{1+t_{ijk}}\right) . Em\left(\frac{1+Ex}{Ex-Em}\right). \qquad (5.1.16)$$

The Welfare Effect

The WITS/SMART model is used to estimate the welfare effects on Kenya. The welfare impact is mainly attributed to the consumers' benefit in the importing country, as a result of lower import prices caused by trade liberalisation. This gives consumers the opportunity to substitute more expensive domestic or imported products with the cheaper imports that are affected by the relevant tariff reduction. A rise in imports may lead to a net welfare gain that can be of interest to consumer welfare; and it is measured as follows:

$$W_{ijk} = 0.5(dt_{ijk}. dM_{ijk}). \qquad (5.1.17)$$

The coefficient of 0.5 captures the mean effect between the ad valorem incidents of the trade barriers before and after their removal/reduction (Laird & Yeats 1986). Equation (5.1.13) assumes that the elasticity of the export supply

is infinite. This is valid for Kenya, because it is a small country that cannot impact significantly on world prices.

5.2.2 WITS/SMART assumption and its relevance to Kenya

SMART relies on the Armington assumption in modelling consumer behaviour (Lang 2006; Othieno & Shinyekwa 2011; Fukunaga & Isono 2013; Lee 2013; Veeramani & Saini 2010; Francois & Pindyuk 2013; Mugano 2014; Mugano 2015 and Lewis *et al.* 1999).

On the supply side, the SMART set-up assumes that, for a given commodity, different countries compete to export to another given country. SMART assumes a perfect export-supply elasticity (that is a degree of responsiveness of each foreign exporter's supply to changes in the price) with a value of 98 or more (Lang 2006; Othieno & Shinyekwa 2011; Balassa 1967; Fukunaga & Isono 2013; Lee 2013; Veeramani 2012; Francois & Pindyuk 2013; Krueger 1999; McKay *et al.* 2005; Busse *et al.* 2004; Makochekanwa 2012; Bilal, Dalleau & Lui 2012; Onogwu & Arene 2013; McIntyre 2005; Mugano 2014; Mugano 2015b and Lewis *et al.* 1999).

In other words, the world price of each export variety is determined outside the control of the country; so that exporters are assumed to be price-takers. This implies that changes in the level of demand in Kenya do not affect world prices; and exporters could continue supplying at any level of Kenyan demand. Considering the fact that Kenya is a small player in the global trade market, the assumption of infinite export-supply elasticity is limited in this study.

On the demand side, SMART also depends on the Armington assumption, which is based on the imperfect substitution between different import sources with different varieties. This means that goods, defined at the harmonised system (HS) 6-digit level, imported from various countries, although similar, are imperfect substitutes. In this study, a value of 1.5 for import substitution

elasticity was used for each good. The Armington assumption of imperfect substitution is maintained for the purpose of this thesis.

5.2.3 Simulation Scenarios

The aim of this study is to analyse the influence of different trade-reforms on Kenya. The study considered the following scenarios:

The impact of COMESA FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Kenya using a WITS/SMART model is examined. In this regard, a zero per cent is applied to all tariff lines imported by Kenya from COMESA member states. Trade between Kenya and its partner states would be duty-free for the agreed tariff lines. These countries are: Zambia, Sudan, Mauritius, Malawi, Egypt, Madagascar, Zimbabwe, Burundi, Rwanda, Libya, Comoros, Seychelles and Djibouti. COMESA non-FTA: Some member states in COMESA have applied for a reprieve (derogation) to implement the COMESA FTA. The countries considered in this study, which are part of the COMESA non-FTA, are the Democratic Republic of Congo, Uganda, Swaziland, Ethiopia and Eritrea.

The effect of the COMESA customs union on trade creation, trade diversion, imports, exports, tariff revenue and well-being in Kenya, using a WITS/SMART paradigm is examined. In this regard, a CET of zero per cent for capital and raw materials, 10 per cent for intermediate commodities, and 25 per cent for finished commodities imported by countries outside the COMESA region is used. At this point, the study assumed that Kenya would only have a customs union with COMESA. Kenya's imports from all other trading partners would attract duty at rates regulated by the common external tariffs.

The impact of WTO FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Kenya, using a WITS/SMART model is evaluated. In this regard, a zero per cent is applied to all tariff lines imported by Kenya from WTO member States.

The impact of EU FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Kenya using a WITS/SMART model is evaluated. In this regard, a zero per cent is applied to all tariff lines imported by Kenya from EU member States. The EU is included as a Kenyan trading partner in this study. The twenty-seven member States, which were considered under the EU regional group, are: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

The impact of Bilateral FTA on trade creation, trade diversion, imports, exports, tariff revenue and welfare in Kenya using a WITS/SMART model is investigated. In this regard, a zero per cent is applied to all tariff lines imported by Kenya from the top ten major trading partners. Other Kenyan major trading partners include the Democratic republic of Congo, Egypt, Germany, India, the Netherlands, Pakistan, the Russian Federation, Rwanda, Tanzania, Uganda, the United Arab Emirates and the United Kingdom. They were chosen because they were major trade partners with Kenya with the largest impact on exports and trade balances besides having Bilateral FTA with Kenya. These were included in this study, in order to assess the impact of various tariff reforms on Kenya. The list of Kenya's major trading partners seem to have left out traditional partners, such as South Africa, and Zambia because these countries could not been captured in any groups, such as COMESA and EU, but would only be counted as the rest of the world, respectively. In respect of the rest of the world (ROW), ROW represents all countries outside the list above. As a result, this study included all Kenya's trading partners, even those outside the WTO, in evaluating the impact of trade policy reforms on Kenya.

The fact that a static paradigm is applied implies that two situations are needed: the situation before the change in trade policy being examined (i.e. the year with the most recent available data, 2008). In this study, trade conditions, which were last used in 2008 under the MFN rates, were compared with the

situation of a free-trade agreement (100 per cent trade liberalisation) and a customs union with recommended CETs. For a customs union, zero per cent was used for capital goods and raw materials, 10 per cent for intermediate goods, and 25 per cent for finished goods. Evidently, the trade conditions in 2008 are at variance with those of the FTA and the customs-union situation; hence, trade changes were established in the form of trade creation, trade diversion, changes in imports and exports and changes in revenue and well-being.

Although Kenya has a number of trade pacts, this study chose the COME-SAFTA, COMESACU, BFTA, WTO and EPAs as a representative sample. The possible impact of EACFTA, EACCU and AGOA can be minored in these agreements analysed in this study.

5.2.4 Sensitivity analysis and Robustness Test

SMART's results may change with changes in the modelling assumptions and parameter values used. SMART does not provide a built-in sensitivity analysis. This is done manually in this research by changing the parameter values over a reasonable range, as suggested by Plummer, Cheong and Hamanaka (2010), Zgovu and Kweka 2009, and Thurlow and Holden (2003).

The price elasticities of demand for Kenya were derived from Stern *et al.* (1976) and the Armington elasticities from Tokarick (2010). The uncertainty as to the actual values for the Armington and demand elasticities, implied that rigorous sensitivity analysis was required to ensure the robustness of the results (Thurlow & Holden 2003; Zgovu & Kweka 2009; Plummer *et al* 2010; Waglé 2011).

Firstly, a 'base-case' simulation was run, using the elasticities presented in Table 5.1.

Table 5.1: Elasticities used in sensitivity analysis

Elasticity	Lower Bound	Base-case***	Upper bound	Worst case
Substitution	0.5	1.44	2	6
Export Supply	89.1	99	99**	99**
Import Demand*	2.7	1.44	3.3	6

* Stern *et al.* (1976), ** Retained as it is infinite, ***Tokarick (2010)

Due to the sensitivity of the models' results, as shown by the above values, the simulations were re-run under various assumptions (see Table 5.1). Upper bounds and lower bounds were computed for the various elasticities. The base case was re-estimated, replacing each of the elasticities in turn with its upper- and lower-bound values. Given that the aim of the study was to estimate the highest likely impact of the trade reforms on Kenya, a 'worst case' scenario was devised, using the upper-bound values.

5.2.5 Data sources and manipulation

The data below were applied in the SMART paradigm in this study, namely import values from each foreign partner; tariffs encountered by each foreign partner's import-demand elasticity for the commodity; export-supply elasticity for the commodity, and substitution elasticity between the different varieties of the commodity.

These data elements were accessible, as they are built into the WITS supported by the COMTRADE, TRAINs, IDB and CTs databases. These are real import figures reported by countries (in US$) at customs points at different product levels. In periods when the Kenya Bureau of Statistics failed to submit trade data, mirrored data were used. Mirrored data are data submitted by Kenya's trading partners, which are used as a proxy for Kenya's trade information. For example, Uganda imports from Tanzania reported to the International Trade Centre would be considered as Kenyan exports.

The UN COMTRADE has all the trade information for Kenya that is needed for this work, ranging from exports, imports, tariffs and non-tariff instruments. WITS software, which is hosted by the World Bank, was applied in this work.

5.3   Summary

This chapter explained and presented the model-specifications and the estimation procedures that were used in analysing the effects of trade liberalisation on Kenya. The empirical aspects, which are the focus in this chapter, include the partial-equilibrium model and the WITS/SMART model. Trade creation and diversion, trade expansion, revenue impact and welfare-effect models have also been explained.

The partial-equilibrium model has all the exemptions associated with a static partial-equilibrium analysis. The partial-equilibrium paradigm allows for the computation of various trade-policy regimes on government revenue, welfare, trade creation and diversion, all of which are the objectives of this particular study. For the purposes of this study, the WITS/SMART model is applied using a partial-equilibrium framework. The WITS integrates various databases, ranging from bilateral trade, commodity-trade flows and various types of trade protection (Lang 2006).

WITS also amalgamate the analytical tools that support the simulation analysis. SMART allows room for the evaluation of the effect of a given trade-policy change (measured in the tariff) on the trade creation, trade diversion, tariff-revenue variation and change in consumer surplus. This is an essential feature of the WITS/SMART model and these outcomes are part of the research objectives of this study.

The next chapter will discuss the empirical findings and the analysis of trade creation, trade diversion, imports, exports, and revenue and welfare implications of the EPA-CU on Kenya. Chapter Six, therefore, presents the SMART simulation results and the analysis thereof.

CHAPTER SIX
THE IMPACT OF EPAs ON KENYA

6.1   Introduction

This chapter presents the empirical findings and an examination of the effects of the Economic Partnership agreements (EPAs) on Kenya. It examines and estimates the effects of the various trade policies on trade features, such as trade creation, trade diversion, exports, imports, revenue and the welfare implications for Kenya. The analysis of the collected results was conducted through the partial-equilibrium approach, using the WITS/SMART model. The information used was derived from the trade-information databases, such as COMTRADE, TRAINS and WTO-IDB.

The key information on the proposed new trade engagements came into force in 2008 and it brought with it a wide variety of potential sacrifices. This meant that the developing countries had to expose their product sectors to increased competition from the European Union (EU). The benefit of the continued preferential access to the European markets became something to consider twice; whether it was worth the additional cost adjustments associated with the envisaged liberalisation of the trade regime (KIPPRA 2005).

The application of the partial-equilibrium approach using the WITS/SMART model based its information from the UNCTAD-managed TRAINS databases. This study selected the year 2008 as the base year. This was because the year 2008 was the latest year for Kenya to obtain access to the EU Markets – precisely when the EU had introduced the reciprocal trade preference for EU goods in Kenya. It is also imperative to note that a zero per cent tariff line was applied to all the imports from the twenty-seven (27) European member countries (Fontagné, Laborde & Mitaritonna 2008).

This tariff for the EU member countries was useful in the WITS/SMART model based on the real tariff applied by the Kenyan revenue authorities at the customs union offices in 2008, and these were saved in the Trains Data Base.

The tariffs applied to goods from the EU were zero-rated from 2008, when the reciprocal access of EU goods to African; Caribbean and Pacific countries inclusive of Kenya were passed. This made enabled this study to estimate the possible impact of the EPAs on trade creation, trade diversion, exports, imports, revenue effects and welfare effects, which formed part of the study objectives. The outline of this chapter is as follows: Section 6.1 provides the introduction. Section 6.2 comprises the comparative examination of Kenya's tariff structure with that of the EUFTA. Section 6.3 presents the discussion of the WITS/SMART model simulation findings for the EPAs, and finally, Section 6.4 summarises the chapters, as well as presenting the researcher's view of the study.

6.2   A comparison of Kenya's tariff structure with that of the EUFTA

The Kenyan and EU trade negotiations have progressed quite slowly. This is shown by the Kenyan government signing the extension as late as 14 October 2014 - just on the expiry date of the Contracts (Langan 2014). Although it was a relief to most Kenyan and EU exporters, it became clear that Kenya was the only country in the EAC not listed in the least-developed countries, according to the EU. This meant that it needed the EPAs with the EU to access the EU quota-free and duty-free markets (Mutambo 2014).

It's significant to note that tariffs in Kenya are among the highest and customs duty of other commodities is more than 100 per cent. Kenya is allowed to leave only 20 per cent of its tariffs due to consideration given to sensitive industries out of the FTA (GOK 2013). This implies that Kenya has to go ahead and comply with EPAs tariff rates by reducing all the other tariffs to zero per cent for most goods considering only 16 per cent are zero rated.

It also revealed that a full trade-liberalisation protocol could be expected by as late as 2022. It was also revealed that Kenya may only be allowed to leave only 20 per cent of its tariff lines – considering it sensitive sectors and industries from the free trade agreement. In this arrangement, it means that Kenya must

change from its current tax trade regime and adopt the new zero-tax regime for the bulk of their products from the EU (Nugent & Rhinard 2015). The Kenya – EPAFTA gave Kenya an opportunity to set its export duties under the EU's generalised system of preference on Kenyan products, which is much lower than the normal EU tariff for other countries. It also meant that most goods got duty-free access to the EU markets (Nugent & Rhinard 2015).

6.3 The SMART model simulation results

This section presents the findings of the impact of EPAs and the FTA on Kenyan trade aspects, such as trade creation, trade diversion, revenue, imports, exports, and welfare effects by use of the WITS/SMART model simulations.

6.3.1 Trade creation and trade diversion

Trade creation is a term mostly used in international economics and trade. This exemplifies the case where trade flows are redirected, as a result of the formation of a free-trade agreement or a customs-union protocol (Eicher, Henn & Papageorgiou 2012). Cost-reducing and more efficient producers in the same regional trade agreement, like the EPAs, would displace less efficient and more costly producers. This would lead to the consumers benefiting from the lower prices (Viner 2014).

In the case of Kenya, this means that the consumers would use more efficient or lower-cost producers in any of the EU countries – leading to the displacing of less efficient and high-cost producers from Kenya. This would, however, also mean that some of the Kenyan producers would be ousted from the market by the efficient producers from the EU, affecting them negatively. Therefore, for the Kenyan producers and industries to compete in this new arrangement, they would have to improve their production quality and efficiency to be better than their competitors in the region – through better quality products and selling them at lower prices.

On the other hand, trade diversion is a case in which trade is being turned away from a more efficient exporter, from the rest of the world, to a less efficient exporter within the regional trade arrangement by either a Customs union protocol or a free-trade agreement protocol (Eicher *et al.* 2012). In this case, it means an efficient producer from the rest of the world would be displaced by a less efficient producer from the 27 members of the European Union member countries within Kenya (Onogwu & Arene 2013).

This also implies that the country would have to lose revenue, which came in the form of import duties. The high quality goods from the rest of the world might well be forfeited at the expense of lower quality goods produced within the EU or Kenya. In cases of customs union protocol, the common external tariff for goods from the rest of the world would move consumers purchase expensive goods produced within the trading bloc. This is simply because the competitor is paying also for the tax; hence, production from the RTA appears to be cheaper (Kahouli & Maktouf 2015).

Table 6.1 illustrates the trade-creation effects and trade-diversion effects generated by the WITS/SMART model as a result of adopting the EPAs with Kenya.

Table 6.1: Trade-Creation effects of EPA on Kenya (US$ Millions)

Trading Partner	Trade Creation Effect	Trade Diversion Effect	Trade Total Effect
European Union	129.45	89.29	218.73

Source: Author's own calculations based on the SMART simulations approach.

Table 6.1 shows that the coming into effect of the EPAs in full automatically dismantled both the tariff and the non-tariff barriers in Kenya. This would likely expose the previously protected industries in Kenya and the EU to compete with other effective industries in the market.

Through the WITS/SMART simulations approach Kenya is expected to realise a trade creation of US$129.45 million and a trade diversion of US$89.29 million, thereby giving Kenya a total trade effect of US$218.73 million. The trade creation, which comprised 59.18 per cent of the total effects, is expected to outweigh the trade diversion, which was 40.82 per cent of the total trade effects. This therefore implies that the EU-Kenya FTA under the EPA has positive total trade effects. This would be good for Kenya; as it would increase the consumer welfare, which would be evident through the drop in prices of imports, lowering the prices of goods and services.

These results are consistent with those of Guei *et al.* (2015), who assessed the revenue, welfare and trade effects of the European Union free trade agreement on South Africa. Their findings indicated that South Africa has positive total trade effects, which comprise 75.44 per cent of trade creation and 24.55 per cent of the trade diversion on goods and services. Hence, these findings give a strong indication that they can be adopted for decision-making purposes and policy improvements.

Mugano (2013) also assessed the impact of EPAs on Zimbabwe in 2013. Their results were similar to this study, where the study determined 97 per cent trade creation and less than two per cent trade diversion. This confirmed that the coming of free-trade agreements would most likely lead to higher trade creation effects with a reduced trade-diversion effect in most cases.

Abdelmalik *et al* (2007) evaluated the impact of the free-trade agreement between the US and Morocco. This study confirmed a positive trade effect with higher trade creation than the trade diversion – implying that Moroccans were able to gain from the free trade agreement through increased welfare.

These studies also confirmed a prediction by the Ronge (2006) who assessed the implication of EPAs on Kenya's agricultural markets' access to the EU. This study anticipated a double growth in the trade-creation effect resulting from the

implementation of the economic partnership agreement with the EU, but recommended that for Kenya to gain optimally from the trade arrangement, there had to be, inter alia, unrestricted access for all Kenyan goods and products into the EU markets, an adequate tariff-phase down period to facilitate and to consolidate achievements from the regional integration.

Table 6.2 illustrates the products and commodities with the highest trade creation effects in Kenya, as a result of the EPAs between the EU and Kenya.

Table 6.2: Products with highest trade-creation effects from EPA (US$ Millions)

HS Code.	Product description	Trade Creation Effect
82	Tools, cutlery, spoons forks and base metal	33.03
27	Mineral fuels and oils waxes	22.82
25	Salt; sulphur; earths and stone	17.54
38	Miscellaneous chemical products	14.52
52	Cotton	10.79
56	Wadding of textile materials fibres and dust	10.22
75	Nickel and articles	6.80
72	Iron and steel	3.31

Source: Author's own calculations based on the SMART simulations approach.

This study found that due to the levels of disaggregation, the trade-creation effects were expected to be more evenly spread across the tariff lines. The goods that would carry the largest trade creation effects included commodities, like tools, implements, cutlery, spoons and forks, base metals, represented 25.52 per cent of the total trade creation, followed by mineral fuels, mineral oils and products of their distillation; bituminous substances and mineral waxes, which had 17.63 per cent of the total trade creation.

This study revealed similar findings to those of Lang (2006), who assessed the impact of free-trade agreements on Europe and the ECOWAS. Lang's findings

indicated that finished goods and raw materials had the greatest trade creation effects, as was evident in this case.

The findings of this study agree with the prediction by Ronge (2006), who investigated the trends of Kenya's exports and imports to and from the European Union markets. Ronge concluded that even after the reciprocal access of EU goods to ACP countries and Kenya were implemented, the trends would most likely remain the same. These trends were the continued increase in the exports of the consumer goods and raw materials; since the imports of the same products also decreased.

Table 6.3: Highest trade diversion effects from EPA (US$ Millions)

HS CODE	Product description	Trade Diversion Effect
630900	Worn clothing and other worn articles.	5.09
100190	Wheat	3.25
271019	Petroleum oils and bituminous minerals	3.34
870323	Cylinder capacity exceeding 1,500 cc	2.98

Source: Author's own calculations based on SMART simulations approach.

Table 6.3 illustrates the most vulnerable goods to trade-diversion effects. This argument is also supported by Onogwu and Arene (2013) from central Africa; who detected significant trade-diversion effects originating from the EPAs.

The WITS/SMART model simulations identified the following commodities to be most vulnerable to trade diversion in the EPAs treaty with Kenya. These comprised worn clothing, used articles, followed by wheat and muslin. It is also noted that most of the losses registered emanated from the products that were regarded as the sensitive products during the free-trade agreement between Kenya and the EU (Richardson & Mazey 2015). This originates from the endeavours of Kenyan traders and consumers importing from the higher cost producers and suppliers within the EU.

It is imperative to note that these findings are in agreement with those of Lang (2006) who examined the ECOWAS-EU free-trade agreement and realised that most items with higher trade diversion resulted from the losses driven from the importing of high cost oil and fuel products. These products were described as having an inflationary effect on the Kenyan prices of consumer goods (Kahouli & Maktouf 2015).

Karingi *et al.* (2005) made a significant contribution to trade creation and trade diversion. They examined the impact of Economic partnership agreements on the Southern African Development Community. The findings of their studies indicated that the trade-creation effects in this partnership would lead to an increment in imports of US$350.8 million.

There is evidence of a greater trade-creation effect than the trade-diversion effects in Kenya. These findings are consistent with the findings of Guei *et al.* (2015); Mugano *et al.* (2013b); Abdelmalik *et al* (2007); Cernat (2003); Meade (1955); Ohyama (1972); Kemp and Wan (1976) and Amponsah (2002a). These researchers noted that some regional groupings' tariff rates were too weak to divert trade from third parties, thereby leading to a higher trade-creation effect than the trade-diversion effects.

6.3.2 The revenue effects

The Kenyan government had to make some very profound decisions – bearing in mind the possible loss of revenues from taxes to meet its budget. It was also not easy to predict whether Kenya would be compensated for the lost revenue on infrastructural maintenance and import duty through increased trade.

The cut in the fiscal revenue is one of the contentious issues that governments had to keenly consider before entering into any trade agreements. The revenue effects of the European Union and the Kenya-trade partnership through the EPAs was addressed through the WITS/SMART simulation approach as it

formed part of the objectives of this study. Table 6.4 highlights the commodities with the highest revenue effects.

Table 6.4: Revenue effects of EPA on Kenya (US$ Millions)

HS CODE	Product Description	Revenue Effect
63	Worn clothing and other worn articles.	-12.69
85	Telephone sets,	-7.50
87	Road tractors for semi-trailers	-5.97
10	Wheat and muslin.	-3.57
48	Paper, paperboard, coated with kaolin	-3.36
17	Cane sugar and chemically pure sucrose	-3.04
27	Petroleum oils and bituminous minerals,	-2.88
21	Food preparations not elsewhere specified	-2.55
Other	Other goods and Products	-100,8
Total		-142.36

Source: Author's own calculations, based on the SMART simulation approach.

As Kenya is carrying out policy reforms to comply with the recommendations of the EPAs, it would likely lead to a revenue loss of US$142.355 million dollar. The items expected to be highly affected with losses were commodities, such as worn clothing and other used articles valued at US$12.69 million, telephone sets, telephones for cellular networks and wireless networks worth US$7.50 million. Other commodities included are shown in table 6.4.

The findings are similar to the studies by Guei *et al*. (2015). They estimated the revenue, welfare and trade results from the EU-South Africa free-trade agreements. It was noted that South Africa would probably incur revenue losses amounting to US$562 million.

These results were also consistent with those of Mugano, Brookes and Le Roux (2013) who examined the impact of EPAs pacts on Zimbabwe. Later,

they found that Zimbabwe would lose as much as US$22.15 million as a result of the tariff reforms and being part of the EPAs treaties.

The outcome of the loss of revenue after member states had embraced the EPAs is consistent with the observations made by other researchers in the region. Oxfam (2006) estimated that Zimbabwe stood to lose US$18.431 million in revenue, had it adopted the EPAs. The marginal difference between these results can be explained by the different time periods at which the researches were undertaken.

Lang (2006) found a significant loss in revenue of around 19 per cent in Ghana, 19.38 per cent in Guinea-Bissau, and 12 per cent in Togo was expected – had they embraced full-trade liberalisation with the EU. It was also clear; as Mugano, Brookes and Le Roux (2013) noted that among the items causing considerable revenue losses, costs from telephone sets and related items featured highly.

More studies in support of these findings are those of Bilal, Dalleau and Lui (2012), who assessed the influence of the EPAs on selected states in West, Eastern and Southern Africa. Their findings also indicated that of the eight countries in West Africa (Benin, Cape Verde, Comoros, Djibouti, Gambia, Ghana, Guinea Bissau and Togo) were likely to suffer significant losses in the form of tariff revenues. The magnitude of these losses ranged from 6 per cent reduction in total tax revenues to as much as 43 per cent.

Revenue losses are expected as a result of the EPAs trade agreement. Dalleau and Lui (2012) argued that the losses are expected due to the loss in revenue resulting from the tax free policy in the FTA.

Matthews (2010) assessed the EPA's and food security and argued that losses from the developing nations and FTA with the developed countries are as a result of the inadequate technology to export manufactured goods and poor

technology amongst the developing countries, leading to high cost production. He also noted that many exporters in the developing countries were unaware of the market rules and regulations, leading fewer participants in the trade ventures, such as those with the EU, causing developing countries like Kenya to experience less benefits and losses from the free trade agreements.

6.3.3 The consumer welfare of Kenyans

Consumer welfare refers to an individual person who would benefit from the consumption of a specific good or service from the EPA countries (OECD 2014). According to the Organisation for Economic Co-operation and Development (OECD) (2014), it was noted that welfare is actually an individual matter. This raises question of whether Kenyans are likely to benefit from the lower prices and better quality goods from the EPAs treaty. Table 6.5 shows the simulations from the WITS/SMART model and the partial-equilibrium approach of data analysis.

Table 6.5: Welfare effects of EPA on Kenya (US$ Million)

HS code	Product Description	Consumer Welfare
63	Worn clothing and other worn articles.	2.11
17	Cane, beet sugar, chemically pure sucrose	0.76
10	Wheat and muslin.	0.66
73	Tanks, casks, drums, cans, boxes	0.51
27	Petroleum oils and minerals	0.41
48	Paper, paperboard, coated with kaolin	0.38
Other	Other Products not specified above	12.73
Total		17.56

Source: Author's own calculations based on SMART simulations.

The results reflected in table 6.5 are derived from the WITS/SMART model approach. They indicate that Kenya could expect to enjoy a consumer-welfare gain of US$17.56 million through the effecting of the EPAs deals. This welfare is quite insignificant – especially in a case where Kenya's GDP stands at

US$60.94 billion, as at 2014 (World Bank 2015). Based on 2014 GDP, welfare gains were less than one per cent.

The commodities which are likely to lead to increments in welfare include items, such as worn clothing and other used articles. They had a welfare effect of US$ 2.11 million, followed by cane or beet sugar and chemically pure sucrose in solid form, valued at US$0.76 million. The tanks, casks, drums, cans, boxes and similar containers, especially of a capacity of 50 litres or more ranked third with the best welfare effect. This is followed by the petroleum oils and oils obtained from bituminous minerals, other than crude with a US$0.41 million welfare effect. The last item of the five commodities with the highest welfare creation was paper and paperboard, coated on one or both sides with kaolin (China clay), which was valued at US$0.38 million. The other commodities had a cumulative welfare effect of US$12.73 million.

These results are similar with those of Mugano (2013), who assessed the impact of the EPAs pact on Zimbabwe using the partial-equilibrium approach. They found that although Zimbabwe was expected to gain by US$2.80 million from its engagement in the EPAs, the gains were quite insignificant. This is because the welfare would be less than 0.03 per cent of Zimbabwe's GDP, as at 2011. In Central African States, Onogwu and Arene (2013) found that the total removal of tariffs under the EPAs led to minimal welfare benefits as a percentage of the GDP.

Karingi *et al.* (2005) also agreed with these outcomes, when they assessed the welfare gains in SADC countries. They found that SADC member countries stood to have increased welfare gains if they had opted to join the EPAs. They further mentioned that if the SADC region adopted the EPA trade agreement, it stood to attain a welfare surplus of US$25.577 million. They also stated that Angola would be the main beneficiary with approximated welfare gains of US$14.940 million. The welfare gains would be spread across 14 member

states, hence arriving at the same conclusion that there were welfare gains, but they were quite insignificant.

Another study in support of these findings is the study of Zgovu and Kweka (2009). They assessed the impact of the EPA on Tanzania and Malawi where they also discovered that there were welfare gains, but they were also too insignificant to be felt by the individual residents.

The researcher found these results to be consistent with economic theory and with the empirical literature. Studies by Balassa (1975), who also estimated the effects of EC FTA on the member countries, and Lang (2006) who also examined the effects of the EU-ECOWAS Free-trade agreement on West African states agreed that the welfare gains from the EPAs were too insignificant to be felt.

6.3.4 The impact of the EPAs on Kenyan exports

The boosting of export competitiveness and the promotion of deeper regional trade agreements has been seen as an engine that would boost economic growth, reduce poverty, and create jobs in developing countries (WTO 2013). These are key necessities in most developing countries, and especially in the Sub-Saharan Africa.

Greater regional competition in the home country has been confirmed to stimulate exports through improved innovation, improved production efficiency, reduced prices and more incentives to produce better goods. This would lead towards an increase in long term job creation and the concomitant increase in incomes and government revenues (World Bank Group 2012).

This study will use the partial-tariff equilibrium approach applying the WITS/SMART Model in addressing the objective of the study, which is to determine the impact of EPAs treaties on Kenyan exports.

Table 6.6 illustrates the results derived from the WITS/SMART model on the effects of Kenyan exports from the EPAs. It shows where the export destinations are, Kenya's export coming before the free-trade agreement, Kenya's exports after the FTA, the changes in revenues from exports, and finally, the percentage share in exports.

The evidence indicates that the number of Kenyan suppliers grew, which means an increase in the Kenyan exports to the EU. This could also result from the increased efficiency in the production of their goods that led to its higher demand in comparison with its competitors in the EU.

Table 6.6: Impact of EPA on Kenyan exports (US$ Millions)

Partner	Exports Before	Exports After	Export Change In Revenue	Share of Exports (%)
U.K.	401.8	458.51	56.7	21.04
Germany	389.72	431.19	41.47	19.79
Italy	181.73	208.23	26.51	9.56
France	237.65	263.96	26.31	12.12
Netherlands	192.04	209.36	17.32	9.61
Belgium	119.67	134.9	15.23	6.19
Sweden	95.68	106.71	11.03	4.90
Spain	48.9	54.78	5.88	2.51
Finland	77.21	80.42	3.21	3.69
Austria	16.71	19.73	3.02	0.91
Ireland	21.53	24.09	2.55	1.11
Denmark	68.96	71.46	2.5	3.28
Poland	4.77	6.11	1.34	0.28
Czech Rep	12.31	13.51	1.2	0.62
Portugal	9.09	10.12	1.03	0.46
Greece	3.08	3.8	0.72	0.17
Hungary	19.46	20.17	0.71	0.93
Slovak Re	3.83	4.5	0.67	0.21
Romania	28.99	29.34	0.35	1.35
Bulgaria	3.66	4.01	0.35	0.18
Luxembourg	1.22	1.45	0.23	0.07
Cyprus	20.68	20.88	0.2	0.96

Slovenia	0.7	0.85	0.15	0.04
Croatia	0.17	0.2	0.03	0.01
Malta	0.34	0.36	0.02	0.02
Estonia	0.09	0.1	0.01	0.00
Lithuania	0.01	0.01	0	0.00
Latvia	0.01	0.01	0	0.00
Total	1960	2178.7	218.73	100.00

<u>Source</u>: Author's own calculations based on SMART simulations.

The EPA's trade agreement is expected to lead to growth in Kenyan exports to the EU. This was evident by the US$ 218.73 million likely increment in the exports, as shown in Table 6.4. Among the most evident export destination for Kenyan goods and commodities, there are countries like the United Kingdom with a 21.04 per cent increment in its exports, followed by Germany with 19.79 per cent, Italy with 12.12 per cent, France with 12.11 per cent, the Netherlands with 9.6 per cent, and Belgium with 6.19 per cent. These were the most visible export destinations for Kenyan commodities. The statistics indicate that Kenya exports to the EU stood at 17.2 per cent of Kenya's total exports (Nugent & Rhinard 2015).

The improved competitiveness caused by a reduction in the production costs of capital goods and raw materials from the EU would lead to increased exports from Kenya to the EU (Matthews 2010). The improvement in the exports would also improve the socio-economic engagement between Kenya and EU Union. Table 6.7 lists the major exports after the EUFTA.

Table 6.7: Kenya's major exports after EPAs (US$ Million)

HS Code	Product Description	Exported value
'09	Coffee, tea, mate and spices	643.49
'06	Live trees, plants, bulbs, roots, cut flowers etc	386.15
'27	Mineral fuels, oils, distillation products, etc	383.53
'07	Edible vegetables and certain roots and tubers	149.05

'62	Apparel, accessories, not knit or crochet	106.05
'28	Inorganic chemicals, precious metal compound	105.70
'61	Articles of apparel, accessories, knit or crochet	99.69
'25	Salt, sulphur, stone, plaster, lime and cement	77.06
'41	Raw hides and skins and leather	68.93
'20	Vegetable, fruit, nut, etc food preparations	66.44
'08	Edible fruit, nuts, peel of citrus fruit, melons	58.15
'39	Plastics and articles thereof	58.03
'24	Tobacco and manufactured tobacco substitutes	53.27
'84	Machinery, nuclear reactors, boilers, etc	53.20
'34	Soaps, lubricants, waxes, modelling pastes	50.10

Source: Author's own calculations based on SMART simulations.

Table 6.7 reveals that the major exports from Kenya to Europe were Coffee, tea, mate and spices valued at US$643.49 million followed by live trees, plants, bulbs, roots and cut flowers worth US$386.15 million. The third largest group of items were mineral fuels, oils, distillation products valued at US$ 383.53 million, edible vegetables and certain roots and tubers worth US$149.05 million.

Other commodities include articles of apparel, accessories, inorganic chemicals, precious metal compounds, isotopes, accessories - knitted or crocheted, salt, sulphur, earth, stone, plaster, lime and cement, raw hides and skins (other than fur-skins) and leather, vegetables, fruit, nuts, etc. food preparations, edible fruit, nuts, peel of citrus fruit, melons among other items listed in Table 6.7. Galar (2015) agreed that most of the goods that Kenya exports to the European Union are primary products. The primary products, according to the World Bank (2014) are vulnerable to most economic shocks and interferences by natural factors, which inevitably lead to increased losses.

6.3.5 Impact of EPAs on Kenya's imports
The developing nations have been working to control and regulate the inflow of imports, without hindering economic growth. This was done with a common

goal of reducing the balance-of-payments deficit (Milner, Morrissey & McKay 2005). The objectives of this study were to assess how Kenya's imports had been affected after it became part of the EU FTA. Based on the WITS/SMART simulation, the findings realised are shown in Table 6.8.

Table 6.8: The impact of EPAs on imports (US$ Millions)

Partner countries	Imports Before FTA	Imports After FTA	Import Change
European union	11,124.51	11,253.96	129.45

Source: Researcher's own calculation and WITS-SMART simulation approach.

Based on the partial-equilibrium approach, the study notes that Kenya is expecting an increment in its imports from the EU of US$129.45 million, which would result from the trade-creation effects.

As the study earlier mentioned, trade creation and trade-diversion effects have had a strong influence on the quality and quantity of imports into Kenya (Kohl 2014).

Table 6.9: Major imports in Kenya from EU (US$ Millions)

HS Code	Product Code	Imports Before FTA	Import Change
87	Vehicles, parts and accessories	293.06	7.37
27	Mineral fuels, oils, and waxes	1557.83	7.29
63	Textile articles and sets;	51.94	6.67
85	Electrical machinery and televisions.	19.84	5.54
48	Paper articles of paper pulp	20.41	5.50
73	Articles of Iron or Steel	6.12	4.02
10	Cereals	201.28	2.95
21	Miscellaneous edible preparations	22.03	1.88

Source: Researcher's own calculations based on SMART simulations.

This is mainly attributed to the preferential trade agreements from the full privilege of the EPAs pact. Table 6.9 indicates that there would be a positive import change of US$129.45 million. This is a clear indication of the growth in imports from the EU. Vehicles other than railway, tramway rolling stock parts and accessories, were the most imported commodities by Kenya from the EU – with an import value of US$293.06 million.

Table 6.9 shows that the import change comprised US$7.37 million of vehicles, tramway rolling stock, parts and accessories from the EU. The second group of products with the largest import value comprised mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes with an import value of US$7.29 million. These were followed by items, such as textiles; worn clothing and worn textile articles; rags valued at US$51.94 million, electrical machinery, equipment and parts, sound recorders and reproducers, television screens, parts and accessories worth US$19.84 million along with the other commodities mentioned in Table 6.9.

These findings were in line with those of Zgovu and Kweka (2009), who assessed the impact of the EUFTA using the partial-equilibrium model approach in Tanzania and Malawi. Their findings indicated a probable increase of one per cent for Tanzania and 6 per cent for Malawi, respectively after the full implementation of the EPAs.

Studies by Guei *et al.* (2015), who estimated the revenue, welfare and trade results from the EU-South Africa FTA, had similar outcomes to this study. They found that South Africa was likely to register an import growth of US$1,266.12 million, as a result of the FTA with the EU. They further confirmed the similarity to imports of petroleum oils and oil from bituminous material worth US$1,557,526, as the main imports from the EU. Other imported products were motor vehicles and motor vehicle parts, electrical machinery and equipment, which the developed nations, like the EU, have a comparative advantage in manufacturing.

These findings were further confirmed by Urata and Okabe (2014), who confirmed that the quality of exports in developing countries has always been very poor – unlike the imports they receive from the first-world countries, which have quality and highly developed technologies; this ultimately lead to a significant balance-of-payments deficit.

6.3.6 Sensitivity analysis and Robustness tests

It is of the utmost importance to note that the WITS/SMART model approach does not provide an in-built sensitivity analysis, given the levels of uncertainty on the real values provided by the Armington and demand elasticities. This means that a rigorous sensitivity analysis is required to guarantee the robustness of the findings or results presented in the study. It is significant to realise that a base simulation was run initially through the use of elasticities derived from   Armington, Stern and Tokarick, as earlier mentioned in Chapter Five.

The findings of the elasticity values had to be redone through the WITS/SMART simulation-model approach with a consideration of the various assumptions. The lower and upper–bounds were computed basically for various elasticities, as indicated in table 5.1. Bearing in mind the main goals of this study being the determination of the impact of the European Union free-trade agreement on Kenya, a worse-case scenario had to be developed by using the upper-bound values with an elasticity of two; and a worst-case scenario with the elasticity of six.

Appendix 1(a) shows the robustness and sensitivity examination for trade creation in Kenya after the assumption of the EUFTA when the trade elasticity was reduced to 0.5 units (Lower bound), no change was shown in the trade-creation values. It remained similar to the base-case with an elasticity of 1.44 units. The elasticities were later adjusted by 2 and 6, but there were no changes in the trade creation. These outcomes confirm that Kenya's total change in imports would still remain the same in value, despite their

composition variations, since the economic agents substitute for one another through the numerous imports.

The sensitivity and robustness test were done on the revenue effects of Kenya after the operationalisation of the EU-Kenya free-trade agreement is shown in Appendix 1(c). The analysis started by adjusting the elasticity from its initial base of 1.44 to the lower bounds of 0.5 unit's elasticity. The findings show that losses reduced from US$142.36 million at the base level to US$130.41 million at the lower-bound levels. This study continued to adjust the elasticity values to 2 and 6, respectively. It became apparent that they increased respectively from the base level. The upper bound, with an elasticity value of 2 produced an increase in financial loss, amounting to US$148.38 million, whereas the worst-case scenario with an elasticity value of 6 showed greater revenue losses amounting to US$197.07 million.

The resultant deviations from the middle grounds are generally significant; hence, using the centre ground estimates renders it closer to the potential required sizes. The table in Appendix 1(d) also reflects the robustness and the sensitivity analysis tests of the consumer-welfare effect on Kenya – especially after the full adoption of the EPAs between the EU and Kenya. At base level, using an elasticity of 1.44, Kenya's consumer welfare was US$17.55 million. When the elasticity was reduced to 0.5, there was evidence of an increase in welfare gains of US$17.92 million. This study then increased the trade elasticity to 2 in the upper case, where it realised a decrease in welfare earnings of up to US$17.36 million. The result showed a similar decrease in welfare with the worst-case scenario of an import elasticity of 6, thereafter the welfare gains dropped further to US$15.90 million.

The margin of error might be regarded conservative and acceptable, and the resulting deviations from the middle-ground results are insignificant. The

middle-ground estimates could thus be within sight of the potential required sizes.

The robustness and sensitivity investigation was also extended to the exports in Kenya after the implementation of the EU-Kenya free-trade agreement, as illustrated in Appendix 1(e). The base results at 1.44 realised an increase in exports after the implementation of the free-trade agreement by 11.16 per cent; and when further adjustments were done to test the lower bounds, it showed a 39.6 per cent increment. The upper bounds and the lower bounds, which had elasticities of 2 and 6, showed an increase of 12.6 per cent and 25.4 per cent, respectively. The deviation findings indicate that the middle group were generally less significant. This study also noted that the resultant deviation from the middle group estimates could be within the range of the probable required sizes.

The robustness and sensitivity determination was wound up by the examination of the imports to Kenya after the EU-Kenya FTA, as illustrated in Appendix 1(f). This study first began by obtaining the base import changes, which had an elasticity value of 1.44, and was able to get an import change of 1.16 per cent. The study, reduced the elasticity to 0.5, but still found a 1.16 per cent Increment. The same results were also obtained when the elasticity was adjusted to 2 at the upper case and 6, where it still showed an increment of 1.16 per cent on both tests. It was found that Kenya's change in imports would most likely remain similar in value, although the composition would change as the economic agents undertake to replace one alternative across the numerous imports.

6.4   Summary

This chapter presented the empirical findings and the assessment of trade creation, trade diversion, the revenue effects, and the welfare effects along with the imports and exports effects of the EPAs on Kenya's economy. This study

used the partial-equilibrium model that applies the WITS/SMART approach, which aimed at addressing the research questions and the research objectives.

This study further noted that should Kenya fully implement the recommendations and expectation of the economic partnership agreements, there would be increased trade creation that would be large enough to compensate for any trade diversion, which would eventually lead to increased net welfare benefits for Kenya. If Kenya eliminated all the tariff barriers against the imports from the European Union and enforced the WTO MFN on non-EU countries, this would lead to trade creation of US$129.45 million.

Through the use of the WITS/SMART model simulations approach, this study was able to assess that Kenya may be experiencing a total fiscal loss in revenue amounting to US$142.36 million if the EU-Kenya FTA is fully implemented. Among the industries that significantly stand to lose from this trade arrangement is worn clothing and other used articles. These revealed losses amounting to US$12.69 million. Telephone sets, including telephones for cellular networks valued at US$7.5 million, road tractors for semi-trailers worth US$5.97 million and wheat and muslin, accrued losses of US$3.57million among others. These revenues are a small ratio or proportion of government revenues but the significance of the government customs revenues are of considerable importance to the nation.

The findings of the SMART simulation approach revealed that Kenya should experience increased consumer welfare benefits, valued at US$17.56 million, after the implementation of the EPAs. It was also noted that Kenya's exports and imports would rise significantly during the implementation of the free-trade agreement. The country would experience an export increment worth US$218.73 million, and an import-value increment of US$129.45 million.

The analyses presented in this chapter show that Kenya would incur both gains and losses from the Kenya and EUFTA agreements. It also highlights the gains

realised that would be increased through trade creation and more consumer welfare gains. This would be affected by the revenue losses experienced through the much-needed transformation, especially in respect of the current tariff structure to make it compatible with the trade agreements and to gain optimally.

Robustness and sensitivity analyses were performed by manually changing the various elasticities applied, with the aim to address the methodological concerns arising from the WITS/SMART simulation approach. The outcome from these tests assured the researcher that the findings and results from this chapter are robust.

The following chapter will present the various finding and the analyses of the trade-creation effects, trade-diversion effects, revenue effects, consumer-welfare effects and the various changes in the quantities of exports and imports resulting from the various bilateral trade agreements in Kenya. The partial-equilibrium model, which makes use of the WITS/SMART simulation approach, will be applied in the analysis to address the various research aims, goals and questions of the study.

CHAPTER SEVEN
THE IMPACT OF BILATERAL AGREEMENTS ON KENYA

7.1 Introduction

Bilateral trade agreement refers to a treaty or settlement pact between two countries at a given time, granting them favoured-trading status with each other (Eicher, Henn & Papageorgiou 2012). The aim of these agreements are to grant the two countries extended access to each other's markets and to enhance each country's economic growth (Abbott, Bentzen & Tarp 2009). Abbott *et al.* (2009) argued that these forms of bilateral deals take place where trading partners standardise business operations, with the main aim of creating a greater level playing field for both countries and to derive special benefits from the trade arrangement. This would enable the country to protect itself against one nation or country stealing another country's innovative goods and products, to control the application of unfair subsidies, and also as a measure to curb the dumping of cheap products.

Many countries give preference to bilateral trade agreements – simply because they are easier to negotiate than a multilateral-trade agreement. This is because two countries are involved, unlike the multilateral-trade agreements, which are bound to fail because of the many parties involved with many conflicting interests (Kohl 2014). If not properly handled, it can lead to bilateral competition, which withers away the benefits of free-trade agreements between the two countries (Bernheim 2008). An example of this is the North American Free-Trade Agreement (NAFTA) and the Transatlantic Trade and Investment Partnership.

This study analyses the effects that the various bilateral trade agreements entered on Kenya. It examines the various effects of the different trade policies by trade creation, trade diversion, exports, imports, revenue and consumer-welfare effects Kenya have on it. The data analysis and the evaluations used the partial-tariff equilibrium model that applies the WITS/SMART simulation approach and 2008 as the base year for the simulation. It made use of the

trade-information databases, which include the TRAINS, COMTRADE and WTO-IDB.

This study primarily used data contained in the United Nations' Conference on Trade and Development (UNCTAD) managed TRAINS database. The year 2008 was chosen as the base year, since this was the latest year in the WITS-SMART software for Kenya, and for easier comparison with other free-trade agreements in Kenya.

The tariffs from the bilateral trade agreements were applied in the WITS-SMART models against the actual real tariffs used by the Kenyan Revenue and Customs Authorities in the year 2008, since these tariffs had been captured in the TRAINS databases. Kenya signed bilateral trade agreements with countries it deemed its closest friends in order to promote symbiotic relationships. These countries included the Democratic Republic of Congo, Egypt, Germany, India, the Netherlands, Pakistan, the Russian Federation, Rwanda, Tanzania, Uganda, the United Arab Emirates and the United Kingdom (EAC 2015; Meyer, Fenyes, Breitenbach & Idsardi 2010).

This study is organised as follows: Section 7.1 contains the introduction to the chapter; Section 7.2 discusses the results of the impact of the bilateral trade agreements from the WITS-SMART modelling approach. Section 7.3 presents the sensitivity tests and robustness analysis of the findings and Section 7.4 provides a summary of the chapter.

7.2   SMART Model simulation results

This section presents the WITS/SMART modelling approach applied in examining the effects of trade liberalisation variables, such as trade creation, trade diversion, imports, exports, revenue and consumer-welfare effects on Kenya.

7.2.1 Trade creation and trade diversion

Trade creation takes place among the lower-cost producers of the nations that Kenya has a bilateral free-trade agreement with. This arrangement would dislodge the less efficient and more expensive producers who are party to the bilateral trade agreement (Viner 2014). This would mean that the Kenyan consumers and the nations involved in the agreement would benefit from the reduced prices. It is however, important to note that whilst the consumers benefit, some producers and suppliers in Kenya could be negatively affected, because their products would be substituted by the more efficient and lower-cost goods and products from partner states within the bilateral free-trade agreement with Kenya. For the Kenyan producers to gain from this trade arrangement; they should improve their production skills and efficiency, in order to be better than their competitors and for them to sell their best quality products at the cheapest prices within the free-trade agreement zone.

Trade diversion happens when the less-efficient producer from within the bilateral free-trade agreement zone would dislodge the superior producer from outside the free-trade regional zone (Viner 2014). Trade diversion has its advantages and disadvantages. The merits would be that trade diversion would give the advantage to a producer from within the free-trade agreement; whereas the demerits come about where the superior producer is locked in – due to their inclusion in the common external tariff to non-members – thereby making their goods more expensive.

This also means that the consumer-welfare effects would be reduced as the consumers would be forced to accept lower-quality expensive goods (Calvo-Pardo *et al.* 2009). Table 7.1 illustrates the findings from the WITS/SMART simulation model approach to determine the trade-creation and the trade-diversion effects resulting from the adoption of the bilateral free-trade agreements by Kenya.

Table 7.1: Trade creation effects of the BFTA on Kenya (US$ Millions)

Trading Partner	Trade Creation	Trade Diversion Effects	Total trade effects
India	138.88	46.61	195.49
UAE	96.60	28.97	125.57
United Kingdom	33.03	23.82	56.86
Pakistan	31.13	15.96	47.09
Russia	21.68	13.82	35.50
Netherlands	10.79	5.57	16.36
Congo, Dem. Rep.	0.92	0.10	1.03
Total	333.04	134.88	467.92

Source: Author's own calculations based on SMART simulations

The bilateral free-trade agreements (BFTA) between Kenya and its eleven partner-states are expected to have a total trade effect of US$467.92 million on Kenya. The trade creation comprises 71.18 per cent of the total trade effects, which outweigh the trade-diversion effects that comprise 28.82 per cent of the total trade effects. This means that the bilateral free-trade agreements between Kenya and its partners have some positive trade effects. This also implies that as a result of the increased trade creation, the Kenyan government would experience a decrease in import prices, and the consumers would benefit from lower-cost goods and related services (Kahouli & Maktouf 2015).

These findings are in line with that of Guei *et al.* (2015), who assessed the revenue, the welfare and the trade effects of the European Union and the South African bilateral free-trade agreements. Their findings showed a positive trade creation, which comprised 75.44 per cent of the total trade effects, exceeding the trade-diversion effects of 24.55 per cent of the total trade effects.

These findings were further supported by Mugano (2015b) who evaluated the impact of the bilateral free-trade agreements on Zimbabwe. The study also revealed a positive trade-creation effect of U$104.57 million, resulting from the bilateral free-trade agreement.

Studies by Onogwu and Arene (2013) from Central Africa studied the effects of tariff removal by Burkina Faso on European-Union imports under the Economic-Partnership Agreements, bearing in mind the trade-creation effects, revenue and welfare implications on the results of this study. The results revealed that a complete abolition of tariffs and taxes brings about a greater trade creation effect, which concurs with this current study.

Abdemalik *et al* (2007) in his study assessed the effects of bilateral trade agreements between the United States of America and Morocco. As a result of these bilateral free-trade agreements, it was confirmed that the Moroccan consumers had an improved welfare experience due to reduced pricing. Table 7.2 shows the commodities that have the highest trade-creation effects from the bilateral free-trade agreements.

Table 7.2: Products with the Highest Trade Creation Effects from BFTA (US$ Millions)

HS CODE	Product Description	Trade Creation
27	Mineral fuels, oils and wax	77.93
10	Cereals	34.75
25	Salt; sulphur; earths and stone lime	4.87
68	plaster, cement, asbestos and mica	4.35
17	Sugars and sugar confectionery	3.89
52	Cotton	3.49
73	Articles of iron or steel	3.42

Source: Author's own calculations based on SMART simulations

Table 7.2 illustrates clearly the levels of disaggregation, which compel trade creation to spread evenly across the various tariff lines. The commodities that have the highest trade creation effects are mineral fuels, mineral oils and the products of their distillation; bituminous substances; and mineral wax - totalling US$77.93 million. These are followed by cereals with a trade-creation value of US$17.09 million and the third-largest items salt; sulphur; earths and stone;

plastering materials, lime and cement having a total trade-creation value of US$11.73 million, among other commodities as shown in Table 7.2.

Of note is that the countries with the highest likelihood of trade creation are India, valued at US$ 138.88 million. This is followed by United Arab Emirates US$ 96.60 million, and the United Kingdom US$33.03 million, among other products mentioned in Table 7.2.

The trade-creation effects derived from petroleum oils and oils obtained from bituminous minerals, other than crude, are good because Kenya imports petroleum and exports refined petroleum products; this value adding generates profit for Kenya (Coady, Baig, Ntamatungiro & Mati 2007). However, this study notes that the trade-creation have negative effects on the various local industries. The negative effects of the trade-creation are evident; because the sugar industry is struggling, almost collapsing, due to intense competition from more-efficient bilateral trade partners as noted by IMF (2010).

Lang (2006) proposed that the ECOWAS governments should introduce financial packages and a number of measures that would cushion local producers against stiff foreign competition.

These findings further agree with that of Hamilton (2009), who studied the potential effects of bilateral free-trade agreements between Malawi and the European Union. The findings were similar; as the expected increase in imports of 0.4 per cent was triggered by the trade-creation effects. Further support for these findings came from Hallert (2007), who investigated the effects of bilateral free-trade agreements between the European Union and Madagascar. The findings showed that a 4.9 per cent growth in imports into Madagascar was expected, resulting from the *ex-ante* effects of the European Union's free-trade agreement. Table 7.3 shows the most vulnerable commodities to trade diversions resulting from the various free-trade agreements.

Table 7.3: Highest trade diversion effects among BFTAs on Kenya (US$ Millions)

Product Code	Product Description	Trade Diversion
10	Cereals	25.56
27	Mineral fuels, oils and waxes	15.03
17	Sugars and sugar confectionery	5.46
87	Vehicles parts and accessories	3.72
63	Made-up textile articles;	2.73
48	Paper and paperboard; articles of paper	1.55

Source: Author's own calculations based on SMART simulations

This information on-trade creation, trade diversion, along with the goods and services most vulnerable to trade creation and trade diversion, are of great significance to the Kenyan government; as it is used in policy making and in negotiation processes.

The highest trade-diversion effects would probably come from Cereals worth US$25.56 million. These are followed by mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes, which were valued at U$15.03 million. This study notes that despite the mineral oils having the second-largest trade diversion of US$15.03 million, it also has the highest trade-creation effect of US$77.93 million – showing that the benefits derived from the mineral oil trade have larger gains.

Other commodities include cereals worth US$25.56 million, sugars and sugar confectionery worth US$5.46 million, vehicles (other than railway or tramway rolling stock) and parts and accessories worth US$3.72 million. Other products include manufactured textile articles; paper and paperboard; articles of paper pulp, of paper, or of paperboard. These are the items Kenya would be importing from the higher-cost producers from within the bilateral free-trade zone; thereby eliminating the efficient producer from outside the bilateral-trade arrangement.

These findings are in agreement with the research findings of Lang (2006), who assessed the impact of the ECOWAS–EU free-trade agreements. This study noted that they were mostly trade-diversion losses from the fuel and oil products, which are similar to the findings of this current study.

7.2.2 The revenue effect

The effects of the bilateral-trade agreements on the country's fiscal revenues are a key factor for most nations including Kenya. This is considered to be a contentious issue, when discussing the various bilateral-trade pacts with trading partners (Lester, Mercurio & Bartels 2015). This is mainly because most countries, including Kenya, should be assured that the tariff cuts due to the bilateral trade agreements would be compensated for by the increased consumer-welfare effects and the trade-creation of goods, compensating for the revenue loss (Kohl 2014).

Table 7.4: Revenue effects of BFTA on Kenya (US$ Millions)

HS Code	Product Description	Revenue Effects	% Revenue Effects
10	Cereals	-72.75	23.88
27	Mineral fuels, oils and wax, ;	-59.71	19.60
17	Sugars and sugar confectionery	-15.90	5.22
6	Made-up textile articles	-13.75	4.51
87	Vehicles ,parts and accessories	-6.58	2.16
48	Paper and paperboard	-5.82	1.91
85	Electrical machinery and television.	-3.18	1.04
52	Cotton	-2.64	0.87
Other	Others	-124.32	40.81
	Total	-304.65	100

Source: Author's own calculations based on SMART simulations

Kenya is among the countries and states required to assume large alterations to its national tariff arrangements due to it being party to many bilateral free-trade agreements. Table 7.4 illustrates the revenue effects of the bilateral trade agreements on Kenya.

The information in Table 7.4 results from the WITS/SMART simulations model estimates. It predicted that Kenya stands to lose a total fiscal revenue loss of US$304.65 million if Kenya and all the parties involved fully implemented the bilateral free-trade agreements.

The main products that are likely to contribute to the largest fiscal revenue losses included commodities, like cereals, which have revenue bills worth US$72.75 million. This is followed by mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes worth US$59.71 million. Other major losers are textile, motor vehicle, papers, and electrical apparatus with revenue losses of US$6.58 million, US$5.82 million and US$3.18 million respectively.

Cereals, which comprise the largest commodity, contribute 23.88 per cent of the loss. This is followed by mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes, which contributed 19.60 per cent to the total loss accumulated. This was simply because petroleum and cereals, like any other raw materials and consumer goods attract zero per cent tariff, hence leading to revenue losses by the country. This loss is expected as a result of the full implementation of the various bilateral-trade agreements.

These findings and outcomes are consistent with studies carried out by Hamilton (2009), who researched the bilateral free-trade agreement between the European Union and Malawi. He noted that 20 per cent of the revenues would decline as a result of the free-trade agreement between the EU and Malawi. In Kenya, the study carried out by Hamilton (2009) also found that an average loss of revenue of 5.7 per cent would be suffered if the state signed a bilateral free-trade agreement with Kenya. Zgovu and Milner (2007), in their assessment of the bilateral free-trade agreements between Kenya and Tanzania, also noted that these free-trade agreements would contribute 54 per cent of the losses.

This means that as the Kenyan Government ventures further into trade liberalisation and regional integration, measures should be set up to ensure additional high quality exports that would exceed the revenues lost through duty access from Kenya's bilateral trading partners.

7.2.3 The Consumer-Welfare effect

Deardorff (2014) defined consumer welfare as the distinct personal benefits that derived from consuming a particular good or service. This theory finds individual assessment and measurement to be crucial in determining the levels of satisfaction. It is significant to note that among the reasons why countries, would implement trade liberalisation are mostly to improve the consumer welfare for their citizens through lower prices and an increased variety of goods coming from the regional market (Feldman, 2008).

In theory trade liberalisation has also had a positive effect on the producers' welfare. This is because it has enabled the producers to specialise and produce for the larger regional market. The higher competition within the region has been a challenge that compelled most of them to improve their production techniques (Hindriks and Myles, 2013).

Table 7.5 illustrates the WITS/SMART simulation findings on Kenya. The findings of this current study, as shown in Table 7.5, reveal that Kenya would be benefitting from US$41.82 million consumer welfare gains shown by the WITS-SMART simulation-modelling approach.

Table 7.5: Welfare effects of BFTA's on Kenya (US$ Millions)

HS codes	Product Description	Welfare Gain
10	Cereals	11.08
27	Mineral fuels, oils and waxes	5.88
17	Sugars and sugar confectionery	3.57
63	Textile articles; sets; worn clothing	2.24
Other	Other products traded	19.05
	Total	41.82

Source: Author's own calculations based on SMART simulations

The consumer welfare and gains are subject to Kenya fully implementing the various policy agreements, and thereby binding the bilateral free-trade treaty. This study also noted that among the commodities that were likely to generate the largest consumer welfare gains are cereals with products worth US$11.08 million contributing 26.45 per cent to total welfare. These were followed by commodities, such as mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes, which contribute 14.06 per cent of the total welfare gains.

It is significant to note that the highest trade creation were similar products which had the welfare effects. This justifies the existence of a more efficient producer within a regional bloc getting the opportunity to produce cheaper, more efficient goods which leads to increased welfare.

The third item among the largest ratios in the consumer welfare includes sugars and sugar confectionery – contributing 8.53 per cent to the total welfare gains among the other commodities mentioned in Table 7.5.The findings of this study are that the consumer welfare effects would be insignificant; since they would comprise only 0.06 per cent of the gross domestic product of US$60.94 billion for 2014, which amounts to (World Bank 2015).

These findings concur with the findings of Mugano (2015b), who assessed the effects on bilateral free-trade agreements in Zimbabwe. The findings show that Zimbabwe's consumer welfare effects were much lower in relation to their gross domestic product. Other studies include those of McKay *et al.* (2005), who assessed Kenya's welfare gains from the Kenya-European Union bilateral free-trade agreement. They noted that consumer welfare was insignificant relative to the gross domestic product. McKay's findings (2015) agree with this study in that as Kenya further liberalises its economy, it should register increased consumer welfare. This implies that the consumers are among the major beneficiaries; although the gains were quite small in comparison to the gross domestic product.

In Asia, the Asian Development Bank Institute (2011) found that the Thailand-New Zealand Comprehensive Economic Partnership Agreement (CEPA) which is a form of bilateral free-trade agreement had consumer welfare gains amounting to US$11.3 million, which was a good indicator; although the gains were small and insignificant.

7.2.4 The impact of BFTA on Kenyan exports

Many developing countries ventured into bilateral free-trade agreements to improve their exports (Cadot & Gourdon 2014). The export-oriented industrialisation and export-substitution industrialisation (ESI) are some of the major initiatives countries are using to acquire trade gains. In order to achieve this export-led growth, countries open up their domestic markets to foreign competitors in exchange for market access to other countries (Deardorff & Alan 2014).

This study considers it necessary to assess the impact of the various bilateral free-trade agreements on the quantity of exports in Kenya; as this forms one of the major objectives of this study. Table 7.6 shows the effects of the various bilateral free-trade agreements on the value of exports.

The United Arab Emirates was among the selected countries with the highest exports after the FTA of US$1,781.24 million as expected, followed by India with US$1,504.77 million, the United Kingdom with an export value of US$458.66 million along with some of the other countries mentioned in Table 7.6 below.

Table 7.6: Impact of BFTA on Kenyan exports (US$ Millions)

Partner states	Exports before FTA	Exports after FTA	Export change in revenue
UAE	1,655.68	1,781.24	125.57
India	1,309.28	1,504.77	195.49
U.K	401.80	458.66	56.86
Netherlands	192.04	208.40	16.36

Russia	166.21	201.71	35.50
Egypt,	157.33	149.94	-7.38
Pakistan	81.37	128.46	47.09
Tanzania	105.46	104.09	-1.37
Uganda	75.41	74.19	-1.22
Congo, DRC	14.25	15.28	1.03
Rwanda	0.37	0.36	0.00
Total	4,159.19	4,627.10	467.92

Source: Author's own calculations based on SMART simulations

As many countries, including Kenya, adopted trade-liberalisation practices, they expected a reciprocal gesture from their trading partners. This means they too should open up their boundaries that would lead to increased export quantities to the nations involved in the various trade agreements (Atkinson, 2012).

The findings of this study show that of the ten selected countries under bilateral free-trade agreement zones, Kenya expects an increment in their exports from US$4.159 billion before the bilateral free-trade agreement to US$ 4.627 billion, which occurred after the bilateral free-trade agreement. This represents a percentage export increment of 11.13 per cent. This is in line with economic theory which states that once countries enter into a free-trade arrangement, all tariff and non-tariff barriers are dismantled – providing room for increased trade and exports growth (Hindriks and myles, 2013).

Table 7.7 identified the various goods and products with the highest export increment or change after the bilateral free-trade agreement had been implemented.

Table 7.7: Major exports of BFTA from Kenya (US$ Millions)

HS Code	Product Description	Exports Value
27	Mineral fuels, oils, and waxes	1588.93
10	Cereals	178.28
30	Pharmaceutical products	75.32
84	Nuclear reactors, and mechanical appliances	78.80
31	Fertilisers	34.32
24	Tobacco and its manufactured substitutes	30.17

Source: Author's own calculations based on SMART simulations

The major commodities expected to contribute to the increased exports between Kenya and various partner countries in the bilateral free-trade agreements are mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes with an export value of US$1588.93 million. This was followed by cereals worth US$178.28 million, pharmaceutical products worth US$75.32 million, nuclear reactors, boilers, machinery and mechanical appliances worth US$78.80 million, fertiliser worth US$34.32 million and tobacco and manufactured tobacco substances valued at US$30.17 million, among other products not listed in Table 7.7.

This principle is also supported by Hallert (2007), who assessed the trade effects of the bilateral free-trade agreements between Madagascar and the European Union. Hallert's findings and this study's findings are in agreement; as both studies agree that there would be an export increase resulting from the bilateral free-trade arrangement. Hallert (2007) noted an increase in exports of 3.8 per cent after the country fully implemented the bilateral free-trade agreement with the European Union. This illustrates a similarity in trends.

7.2.5 The impact of bilateral free-trade agreements on Kenyan imports

The conventional theory on trade proposes that a trade reform that is derived from the formation of a free-trade agreement has the likely effect of increasing the quantity of imports because the prices of imported goods would have

dropped (Atkinson, 2012). This leaves the questions (to be answered by this study) as to whether the bilateral free-trade agreements have increased the imports or exports in Kenya or whether it led to their decline? The pursuit of these answers would assist in meeting this study's objective of evaluating the impact of bilateral free-trade agreements on Kenyan imports. Table 7.8 illustrates the impact of the bilateral free-trade agreements on the value of the imports.

Table 7.8: Impact of BFTA on Kenyan imports (US$ Millions)

HS code	Product Description	Imports Before BFTA	Import Change
27	Mineral fuels, oils and waxes	1,557.83	158.30
10	Cereals	286.36	39.85
63	Made-up textile articles	51.94	7.30
52	Cotton	36.34	5.00
25	Salt; sulphur; earths lime and cement	52.59	4.87
17	Sugars and sugar confectionery	70.59	4.85
68	Plaster, cement, asbestos and mica	0.49	4.41
12	Oil seeds , oleaginous fruits; and grains,	3.96	3.70
Other	Other	9,064.41	127.59
Total		11,124.51	355.87

Source: Author's own calculations based on SMART Simulations

The findings of this study based on the WITS/SMART simulations approach show that there is an expected increase in the imports by US$355.87 million as a result of bilateral free-trade agreements. The increase in imports can be explained by the developments in economic agents, especially in cash flows, owing to the low cost of importing as taxes, tariffs and also non-tariff barriers would have been abolished. Table 7.8 shows the top ten imports from the various bilateral free-trade agreements with Kenya.

As shown in Table 7.8 among the major contributors to increase the Kenyan imports from the bilateral free-trade agreements are commodities such as mineral fuels, mineral oils and products of their distillation; bituminous

substances; mineral waxes which bore an import change value of US$158.30 million, followed by cereals with an import growth value of US$ 39.85 million among other commodities listed in Table 7.8. These commodities show that the goods imported like cotton and sugar are as result of the free-trade agreement where a cheaper producer within the bilateral free-trade zone gains trade against inefficient Kenyan competitors in Kenya. This poses a challenge to Kenyan policy makers to work on improving the quality of goods produced and the cost of production to make Kenyan products competitive internationally.

7.3   Sensitivity tests and Robustness analysis

Due to the levels of uncertainty in respect of the actual value resulting from the Armington elasticities and demand elasticities, this study finds it necessary to carry out a rigorous sensitivity examination to validate the robustness of the findings presented in this study. It is important to note that previously a 'base-case' simulation was run with the use of elasticities from Armington, Stern and Tokarick as presented in Chapter Five.

Assuming the likely sensitivity of these models' results to the elasticity values, this study had to review the simulations under changing assumptions. This included the lower bound, upper-bound, the base and the worst-case scenario limit as established by the different elasticities stated in appendices 1(a), 1(b), 1(c), 1(d), 1(e) and 1(f).

A key objective of this study was to find the biggest probable effect of the bilateral free-trade agreements on Kenya. Case scenarios formulated with the use of the lower bound, base case scenario, upper bound and worst-case scenario are illustrated in appendices 1(a), 1(b), 1(c), 1(d), 1(e) and 1(f).

Appendix 1(a) reports on the sensitivity analysis and robustness examinations of the trade-creation and trade-diversion effects in Kenya after the implementation of the bilateral trade agreements. This study noted that with the reduction of the trade elasticity value to 0.5 units (lower bound) the results

showed no alteration on the trade creation from the base-case in Kenya. The same was repeated even when the trade elasticities increased to 2 and 6 and no change was realised as it remained the same at US$333.04 million.

The appendix 1(b) showed how trade diversion increased to US$45.39 million with the varying of the elasticity at 0.5 units of elasticity. At base of 1.5 units of elasticity the trade diversion showed an increase to US$134.88 million. These trends were further continued to an elasticity of 2 at the upper-bound case where the trade diversion was US$180.98 million and the worst-case scenario had a trade of US$523.25 million, which clearly illustrated a positive correlation between the degree of elasticity and the quantities of trade diversion. These results indicate that Kenya's total change in the imports remains unchanged in value; although the structure thereof changes as economic agents substitute for the various imports.

The analysis on the sensitivity and robustness tests were carried out on the revenue effects of Kenya after the execution of the bilateral free-trade agreements as shown in appendix 1(c). On reduction of the trade elasticity to 0.5 from the base of 1.5 the revenue loss also reduced from US$304.65 million to US$279.24 million. On further adjustments in the trade elasticity values from 2 to 6 the resultant findings indicated an increase in revenue. In the upper-bound scenario with an elasticity of 2 the revenues increased from US$304.65 million to US$318.50 million; hence, the worst-case scenario maintained the same trend leading to an increment from a base of US$304.65 million to US$405.27 million. These trends confirm the responsiveness of the various imports to the relative price variations is growing, which has an impact on revenue. It is important to note that a 5 per cent margin of error on the upper- and lower-bound limits seems conservative and acceptable along with the resulting deviations from the centre-ground results, which are generally insignificant. With reference to the middle-ground estimations these results could be within the view of potential sizes.

Appendix 1(d) also incorporated the sensitivity analysis and the robustness tests on the welfare implications in Kenya after compliance with the terms and reference of the bilateral trade agreements. The manipulations of the trade elasticities began by reducing the elasticity from 1.5 to 0.5. The resultant effect was that the welfare gains increased from a base of US$41.82 million to US$43.06 million. On further manipulation from the base elasticity of 1.5 to the upper-bound of 2 the results showed a drop in the welfare gains. The welfare gains decreased from US$41.82 million at base to US$41.14 million at the upper-case. The trends were further maintained when the elasticity increased to 6 resulting in a further drop of US$37.62 million. The margin of error is observed to be conservative and acceptable, and the resultant deviances from the middle-ground outcomes are insignificant. Hence, the middle-ground estimations might be within view of the possible dimensions.

This study further carried out the sensitivity analysis and robustness tests on the various exports in Kenya after the enactment of the bilateral free-trade agreements as demonstrated in appendix 1(e). The trade elasticity of 6 was first adjusted to show the worst-case scenario. It showed that the base-case which had an export percentage change of 11.25 per cent experienced a further increment of 20.59 per cent in the worst-case scenario after the implementation of the various bilateral trade agreements. On assessment of the upper-bound case in comparison to the base-case the export change was seen to increase to 12.36 per cent, compared to 11.25 per cent of the base-case. This trend further decreased as the elasticity reduced to a 0.5 elasticity, which showed a 9.10 per cent change in their exports after implementing bilateral trade agreements. The resultant deviations from the central ground findings are largely insignificant. In application the middle-ground estimations possibly will be within view of the possible sizes.

The study finalised the robustness and sensitivity tests on the imports in Kenya, especially after the enactment of the bilateral trade agreements shown in appendix 1(f). The findings showed no change in the results despite the various

manipulation levels from 0.5 elasticity at the lower-case, 1.5 elasticity at the base-case, elasticity of 2 at upper-case and elasticity of 6 at worst-case; all displayed a similar change of 3.2 per cent. These findings demonstrate that Kenya's total changes in the imports remain unchanged in value, even though the structure thereof varies as economic agents substitute for the several import types.

7.4   Summary

This section presented the empirical findings and the sensitivity analysis of the trade creation effects, trade diversion effects, the revenue effects, welfare implications, the export effects and import outcomes as a result of bilateral free-trade agreements between Kenya and its partners. The use of the WITS-SMART modelling approach was used in achieving the research aims and objectives which will be explored further in this study.

It was noted that the bilateral trade agreements would have a significant effect on the trade creation and trade diversion along with the welfare gains for Kenya. These would be experienced if and only if Kenya complies fully with the bilateral trade agreements and goes ahead to impose an MFN on the non BFTA member nations. This would automatically result to trade expansion valued at US$333.04 million. The major contributors to the trade creation effects include commodities generating the highest trade creation effects. These are Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral wax valued at US$77.93 million. They are followed by Cereals with a trade creation value of US$17.09 million and the third largest group of items are Salt; sulphur; earths and stone; plastering materials, lime and cement with a total trade creation value of US$11.73 million among other commodities as mentioned in Table 7.2.

Kenya, as an importing country showed minimal trade diversion with a less significant effect that contributed 28.82 per cent of the total trade effects. This was outweighed by the total trade creation effects of 71.18 per cent of the total

trade effects. This actually meant that Kenya derived positive trade creation effects from the bilateral free trade between Kenya and its trading partners. It also meant that Kenya would be less affected by the overall import quantity, by simply re-allocating the market shares and segments among its exporting partner states, based on the latest relative prices. The growth of imports resulting from the BFTA states was balanced through a reduction in the imports from the rest of the world causing minimal trade diversion effects. Trade creation therefore remains to be the only influence on the total social welfare.

The simulation resulting from the WITS/SMART model estimated that Kenya could experience a total fiscal revenue loss amounting to US$30.46 million as a result of the BFTA. This study noted that commodities such as cereals which was the largest commodity creating 23.88 per cent of the loss. This was followed by mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes which contributed 19.6 per cent to the total loss accumulated among other commodities stated in table 7.4.

A consumer welfare effect was a key variable that also formed part of the research objectives that needed to be analysed by using the WITS-SMART simulation approach. This study revealed that Kenya would be experiencing consumer welfare amounting to US$41.82 million, as a result of implementing the terms and conditions of the bilateral free-trade agreement. The impact of the BFTA pacts on welfare was deemed quite insignificant on Kenya and its citizens.

It is estimated that Kenya could gain from increments in its export and import quantities amounting to an export value of US$4.63 billion and import change value of US$3.963 billion, upon affecting the BFTA. The study also noted that the rise in the import quantities understandably result from the developments in the economic agents, cash flows and the reduced cost of imports resulting from the abolishment of the tariff and non-tariff barriers to trade.

An assessment of the above analysis makes it apparent that Kenya stands to lose more by being part to the BFTAs. The Kenyan government stands to lose significant revenues from the extensive transformation program of the current tariff structure. It is very probable that the industry would be threatened by the management of trade diversion effects. The welfare gains of US$41.82 million are insignificant to compensate for both loss in revenue, increased unemployment rates and possible negative implications of de-industrialisation.

This study assessed the sensitivity and the robustness of these results. The findings based on the account of sensitivity analysis and robustness tests reveal that deviations from the central ground results are generally insignificant. Consequently, the middle-ground estimates may perhaps be within view of the potential sizes.

The following chapter of this study presents the empirical findings and analyses of the trade creation effects, trade diversion effects, revenue effects, consumer welfare effects and the import plus export implications of the World Trade Organisation Free Trade Agreement (WTOFTA) on Kenya. This is in line with the questions and objectives of this study that seek to determine the effects of WTOFTA on the variables above.

CHAPTER EIGHT
THE IMPACT OF WTO FREE-TRADE AGREEMENT ON KENYA

8.1   Introduction

This chapter presents the empirical findings and the analysis of the effects of the World Trade Organisation Free Trade Agreement (WTOFTA) on Kenya. Deardorff and Alan (2014) described the WTO as an inter-governmental establishment which is charged with the mandate of international trade regulation. The WTO was officially launched on 1st January, 2005 (Deardorff & Alan 2014). It was established under the Marrakesh Agreement Pact and signed by the first 123 member states on the 15th of April 1994 (WTO 2014).

This chapter also examine the effects of the trade policy regimes of various trade variables such as trade creation, trade diversion, imports, exports, revenues and the welfare on Kenya. The chapter is organised as follows: Section 8.1 comprises the introduction; Section 8.2 consists of a comparison between Kenya's tariff structure and that of the WTOFTA. Section 8.3 presents the findings of the WITS/SMART model simulations. Section 8.4 contains a summary of the chapter.

8.2   Comparative assessment of Kenya's and WTO tariff structure

The WITS/SMART Model simulations approach was used to analyse the various trade effects of the WTOFTA on Kenya. The base year is 2008 and information from trade data bases such as TRAINS, COMTRADE and the WTO-IDB was applied. The SMART model also made use of the information contained in the UNCTAD-managed TRAINS data bases.

The WTOFTA applied a zero per cent on tariff lines that were traded between Kenya and the other 152 member states of the WTO (Hoekman & Mavroidis 2015). The tariffs from the WTO were applied in the WITS/SMART model against the actual tariff that was applied by the Kenya revenue and customs authority in 2008 and saved in the TRAINS data bases (WTO 2013).

The adoption of the WTOFTA protocol implies that most, if not all of the Kenyan tariff structure would be zero rated. This also means that unilateral trade liberalisation under the WTO scenario, which implies that Kenya's taxes and tariff lines would be reduced to zero per cent of the taxes or duty free. Kenya's current negotiations with the WTOFTA protocol have been very slow; this would cause Kenya to take a massive concession of taxes and tariffs to be reduced down when the Doha Round Table Conference is concluded (Matsushita, Schoenbaum, Mavroidis & Hahn 2015).

It's significant to note that Kenya's tariffs and customs duty of other commodities are among the highest, being more than 100%. Kenya is allowed to leave only 20 per cent of its tariffs due to consideration given to sensitive industries out of the FTA. This implies that Kenya has to go ahead and comply with WTO tariff rates by reducing all the other tariffs to zero per cent of most goods, considering that only 16 per cent are zero rated.

The findings of this study are therefore significant as it could assist Kenya to re-assess the impact of the effects of the Doha Round Table Conference in good time hence to apply the various corrective measures. Notwithstanding the conclusions and achievements of the Doha Round Table, the process of amalgamation of several trade pacts Kenya has entered into brings it much closer to the WTOFTA. It is therefore important that this study reviews the impact of the World Trade Organisation on Kenya.

8.3   SMART model simulation results
In this section the results and findings from the WITS/SMART model are presented. The results include findings on trade creation, trade diversion, revenue effects, exports, imports and the consumer welfare effects.

8.3.1 Trade creation and trade diversion
This study explained trade creation as a scenario where more efficient or lower-cost producers among the WTO states would dislodge the less-efficient or

higher-cost producers in Kenya. This therefore implies that the Kenyan consumers would gain more from lower prices even though some of the producers in Kenya would be negatively affected since their products would be left out and be replaced with efficient products from other countries within the WTO region (Handley 2014).

Milner *et al.* (2005) described trade diversion to be a scenario that is more costly to any country as the revenues generated through import duty would be forgone. The consumer welfare would reduce as the consumers will pay for an expensive producer and supplier within FTA member countries. When trade diversion comes into effect after the formation of a free-trade area, it will lead to the elimination of tariffs (WTO 2013). Table 8.1 was generated from the findings from the WITS/SMART model showing the trade creation and trade diversion effects on Kenya after the adoption of the WTO free-trade agreement.

Table 8.1: Trade creation and trade diversion effects from WTO (US$ Millions)

Trading Partner	Trade Total Effect	Trade Creation Effect	Trade Diversion Effect
WTO	995.16	995.16	0.00

Source: Author's own calculations based on SMART simulations

Table 8.1 shows the trade creation and trade diversion effects on Kenya if it adopts the WTOFTA protocol. It is fundamental to emphasise that there is no trade diversion effect resulting from the adopting of the WTOFTA. This implies that the FTA with the WTO member countries is expected to draw total trade creation effects amounting to US$ 995.16 million into Kenya, mainly from the WTO member states. Trade creation effects form 100% of the total trade effects meaning that the trade diversion effects were quite insignificant. It also suggested that the Kenya-WTOFTA would mostly have positive trade implications. This would thus be improvement in consumer welfare resulting from the decreased import prices and improved quality of goods consumed by the superior producer from WTOFTA.

Table 8.2: Highest trade creations (Nations) in Kenya from WTOFTA (US$ Millions)

Trading Partner	Trade Total Effects	Trade Creation Effects
India	146.29	138.88
China	135.12	131.44
United Arab Emirates	98.19	96.60
South Africa	82.11	73.75
Japan	57.38	57.02
United States	46.97	45.38
Saudi Arabia	35.00	33.41
United Kingdom	34.35	33.03
Pakistan	35.44	31.13
Thailand	27.73	26.15
Kuwait	24.83	24.57
Germany	23.76	22.82

Source: Author's own calculations based on SMART simulations

Table 8.2 lists twelve of the 152 member states with the largest trade creation gains from the WTOFTA. India would be the largest beneficiary generating a trade creation value of US$146.29 Million. This is followed by China which would have a trade creation value of US$135.12 million. The nation with the third highest trade creation value of US$98.19 million is the United Arab Emirates.

Other nations with high trade creation gains are South Africa, Japan, United States of America and Saudi Arabia which have a trade creation value of US$82.11 million, US$57.38 million, US$46.97 million and US$35.00 million respectively (Table 8.2).

This study notes that for any improvement in policy management, nations should be aware of the commodities with the highest trade creation and the commodities that may require protection during policy implementation and

policy negotiation. The government of Kenya and relevant stakeholders should set policies that would enhance their expansion and export growth in the world market. Table 8.3 highlights the goods and services that are predicted to have the highest trade creation effects, especially after the implementation of the free-trade agreement with the WTO.

Table 8.3:   Products with highest trade creation effects in Kenya after WTOFTA (US$ Millions)

HS Code	Product Description	Trade creation
27	Mineral fuels, oils and waxes	447.47
10	Cereals	97.89
17	Sugars and sugar confectionery	30.17
25	Salt; sulphur; plastering materials and cement	26.30
52	Cotton	21.17

Source: Author's own calculations based on SMART simulations

Deardorff and Alan (2014) stated that commodities attracting high tariff rates are most vulnerable to higher trade creation effects. An example of these commodities are petroleum, which despite the high shipping prices also attract local tariffs at all stages of processing and value addition, making it very expensive.

Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes have registered the highest trade creation effects of US$447.47 million. This was followed by cereals valued at US$98.89 million. The third largest trade creation effects valued at US$ 30.17 million comprise sugar and sugar confectionary among other products as shown in Table 8.3.

The findings from the WITS/SMART simulations demonstrate that the trade creation effect should neutralise the trade diversion effect in Kenya which would eventually lead to net welfare gains for the country under the WTOFTA.

The findings indicate that Kenya, which is the importing country, has a neutral trade diversion effect. This means that it does not affect the general import volumes, although its role is the re-allocation of the market shares amongst the exporting associates based on the latest relative prices. The increasing volumes of imports from the WTO states are well-adjusted by a reduction in imports from the rest of the world. This explains why the trade diversion is equivalent to zero.

These results are in agreement with the findings of a study by Alfieri, Cirera and Rawlinson (2006) of Mozambique who predicted Mozambique's imports increasing by 4.68 per cent due to the displacement of local manufacturers by superior producers among the most favoured nations in terms of the enactment of the free trade agreements.

These findings were supported by Mugano *et al.* (2013b) who examined the impact of the WTO free-trade agreements on Zimbabwe. They also noted a positive trade creation effect valued at U$104.573 million resulting from the free trade agreement and no trade diversion effect realised.

Abdemalik *et al* (2007) assessed the effects of bilateral trade agreements between the United States of America and Morocco. As a result of these bilateral free- trade agreements the Moroccan consumers experienced improved welfare because of the benefits of reduced pricing. Table 8.2 depicts those nations that have the highest trade creation effects from the WTO free-trade agreements.

These results concur with that of Guei *et al.* (2015) who measured the revenue, welfare and trade effects of the European Union and South African free-trade agreements. Their results show positive trade creation, composed of 75.44 per cent of the total trade effects, exceeding the trade diversion effects which were 24.55 per cent of the total trade effects.

This study agrees with that of Lang (2006) who assessed the trade creation and diversion effects between the ECOWAS–EU FTA. Lang (2006) found that most losses were coming from fuel, oil and petroleum products, therefore, the trade creation effects only, influence the total social welfare. Despite the positive trade creation effect from the WTOFTA on Kenya the impact on unemployment and de-industrialisation may have a negative influence on Kenya, especially if reversing the expected welfare achievements.

8.3.2 The revenue effects

The majority of member states within the WTOFTA states regard fiscal revenue to be a major consideration of being part of the WTOFTA (McGovern 2015). This is where most nations would seek answers that would address their fears on how they would be compensated for lost revenues through tax withdrawal as a result of being members of the WTOFTA. Table 8.4 shows the total revenue losses from the WTOFTA agreements on Kenya.

Table 8.4: Revenue effects after WTOFTA (US$ Millions)

Product Code	Product Description	Revenue Effects	% of the total loss
10	Cereals	-111.9	13.7
27	Mineral fuels, oils and wax	-89.10	10.90
17	Sugars and sugar confectionery	-61.37	7.51
63	Made-up textile articles	-23.37	2.86
87	vehicles, parts and accessories	-18.51	2.26
52	Cotton	-9.05	1.11
87	Vehicles, parts and accessories	-8.49	1.04
Other	Other	495.36	60.62
Total		-817.15	100

Source: Author's own calculations based on SMART simulations

It is important to note that the levels of taxation in Kenya are cause for concern (Thiga & Muturi 2015). This was emphasised by the study of Khan (2014) that emphasised that Kenya is among the highest taxed nations because of double taxation from local government and central government. This means that

Kenya is among the countries that should re-evaluate their countrywide tariff arrangement so as to conform to the WTO new rates, bearing in mind that the tariff lines are liberalised in the WTOFTA. Table 8.4 indicates that the fiscal revenue loss implications for Kenya, as a result of the WTOFTA, amount to US$817.15 million, according to the WITS/SMART model simulations.

The tariffs withdrawal resulting from the WTOFTA has revealed the harmful effect on Kenya's economy due to revenue losses. Table 8.5 shows the leading products that were highly affected by the implementation of the WTO-FTA. According to the WTO (2012) these losses emanate from the fall in the import tariffs and taxes. This necessitates the Kenyan government to apply Value Added Tax on all imported goods and products to compensate for the revenue losses. The most affected in losses are cereals worth US$111.9 million. The second product with revenue losses are products such as Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes worth US$89.10 million, which is 10.9 per cent of the total losses. These were followed by sugars and sugar confectionery at 7.51 per cent of the total losses among other goods and products mentioned in Table 8.4.

These findings do confirm that that the effect of unilateral liberalisation of taxes and tariffs in the WTO setting on revenue loss is quite significant as it constitutes more than 10 per cent of the revenues collected through taxes from the international trade (IMF 2015). This is in line with the findings of Mugano *et al.* 2013 in their study of the impact of WTOFTA on Zimbabwe. Their findings revealed that Zimbabwe made losses amounting to US$131.458 from the WTOFTA agreement. It also revealed that the major losses derived from motor vehicle imports. This is similar to Kenya as motor vehicles are among the major contributors to revenue losses as shown in Table 8.4.

These outcomes are in agreement with the *ex-ante* studies in Mozambique conducted by Alfieri *et al.* (2006). Alfieri *et al.* (2006) found that Mozambique

would sustain a significant loss as a result of the implementation of the World Trade Organisation Free Trade Agreement.

8.3.3 Consumer welfare effects

Bhagwati (1994) stated that consumer welfare and producer surplus is an important issue mainly used to help economists with normative judgment of the various ways of producing and distributing goods and services in international trade. This study found the WITS/SMART model approach to be helpful in evaluating the possible consumer surplus. Among the key arguments in favour of free-trade treaties is that there are consumer gains through lower prices and better quality goods. This is mostly realised in cases where the trade creation effects are greater than trade diversion effects. Table 8.5 illustrates the total welfare effects as a result of the implementation the WTOFTA.

Table 8.5: Consumer welfare effects after WTOFTA (US$ Millions)

HS Code	Product Description	Welfare Effects
10	Cereals	21.38
17	Sugars and sugar confectionery	13.11
27	Mineral fuels, oils and waxes	6.95
60	Knitted or crocheted fabrics	3.82
63	Made-up textile articles	3.63
52	Cotton	2.64
Other	Other	52.45
Total		103.98

Source: Author's own calculations based on SMART simulations

It is evident from the results on trade creation that Kenya is expecting the total trade creation estimate to surpass that of the trade diversion estimates. This implies that the consumer welfare paybacks would be implemented through trade liberalisation as predicted by Viner (2014).

The WITS/SMART simulations approach reveals that Kenya was expected to experience benefits in consumer welfare of US$103.98 million through implementing the recommendations of the WTOFTA. However, these total gains seemed to be insignificant as they represent only 0.18 per cent of the GDP of 2014 which stood at US$60.94 billion (World Bank 2015).

These findings agree with the findings of Alfieri *et al.* (2006). They investigated the effects of a unilateral full trade liberalisation between Mozambique and all the members of the WTO. The similarity of their findings to this study is that both studies registered welfare gains, insignificant though, especially constituted but a fraction of the gross domestic product in the recent five years. The summation of the consumer welfare effect was derived from the list of various goods with their contribution to the total welfare effect.

This study considered it important to determine which of these goods represent the highest contributors to the consumer and producer welfare effects especially to aid policy making to protect commodities deemed sensitive.

Cereal produce expected the highest consumer welfare effects valued at US$21.38 million. This was followed by sugars and sugar confectionery worth US$13.11 million. It is significant to note that the highest trade creation products were similar to the products that yielded the welfare effects. This justified the existence of a more efficient producer within a regional bloc to benefit from the opportunity to produce cheaper and more efficient goods, which lead to increased welfare. The third group of products with the highest welfare effects were mineral fuels, mineral oils and products of their distillation; bituminous substances; and mineral waxes worth US$6.95 million in total, among other products stated in Table 8.5.

It is noteworthy that the commodities identified to have higher government revenue losses are the same commodities with the highest welfare effects. This implies that the major losers in revenue effects should be viewed in the basket

of goods that yield the welfare gains simply because these products turn out to be low-cost to households – thereby, increasing the welfare effects.

8.3.4 The impact of WTOFTA on Kenyan exports

The global markets have experienced acceleration of trading patterns in the latter half of the 20th century (WTO 2013). These trade patterns are seen to vastly differ from those projected by classical trade theories that were built around perfect competition, comparative advantage and constant returns to scale (Krugman 1994). Based on Adam Smith's principles of the division of labour as well as specialisation for economic growth and development, plus the Heckscher-Ohlin Samuelson (HOS) model of international trade, nations should specialise in producing those products and goods in which they have a comparative advantage (Groppo & Piermartini 2014). This also necessitates the expansion of exports within sectors a nation is endowed with.

This study found it necessary to assess the impact of trade liberalisation on exports as a result of being part of the WTOFTA which evidently promotes production for not only domestic but also international markets. This study employed the use of WITS/SMART modelling approach to show the impact of trade liberalisation on Kenyan exports within the context of the WTO as shown in Table 8.6.

Table 8.6: Kenya's export destination from WTOFTA (US$ Millions)

Partner	Exports before WTO FTA	Exports after WTO FTA	Export Change In Revenue WTO FTA
United Arab Emirates	1655.68	1753.87	98.19
India	1309.28	1455.57	146.29
China	932.18	1067.30	135.12
South Africa	678.17	760.28	82.11
Japan	649.33	706.71	57.38
United States	402.25	449.23	46.97
United Kingdom	401.80	436.15	34.35
Germany	389.72	413.48	23.76
Saudi Arabia	373.13	408.12	35.00

Singapore	360.68	377.11	16.43
Indonesia	335.70	345.10	9.40
France	237.65	255.64	17.99
Bahrain	198.83	213.58	14.75
Netherlands	192.04	203.32	11.28
Italy	181.73	196.92	15.19
Kuwait	169.29	194.12	24.83
Russia	166.21	188.02	21.82
Thailand	131.38	159.10	27.73
Belgium	119.67	130.20	10.53
Egypt, Arab Rep.	157.33	127.02	-30.30
Israel	118.67	124.79	6.12
Others	1963.79	2154.05	190.22
WTO	11 124.51	12 119.68	995.16

Source: Author's own calculations based on SMART simulations

Based on the findings shown in Table 8.6, the Kenyan exports to the WTO is expected to be US$11.12451 billion before the implementation of the WTO trade pact. After the WTOFTA the exports increase to US$12.11968 billion leading to an export change of US$995.16 million.

These findings agree with those of Handley and Limão (2012), who predicted that if Australia unilaterally reduced taxes and tariffs to free trade levels, according to the free trade pact, the number of traded commodities and products would grow by 4 per cent. On the other hand, if Australia reduced both taxes and tariffs to zero and bound them through WTO commitments, the combined impact of removing the motives for caution and delay would increase the number of traded products by 11 per cent. Here, they would be able to confirm that with the changes in trade policy through free trade agreements would cause an increase in the quantity of exports as shown in Table 8.6.

Table 8.7 shows which commodities were the biggest contributors geographically to the increase in exports after the unilateral trade liberalisation within the framework of the WTO.

For purposes of negotiations and policy making, it is necessary to determine the major export destinations for most of the Kenyan products. This study notes that the major export destination for Kenyan goods is the United Arab Emirates valued at US$1,753.87 million after the WTO free-trade agreement.

This is followed by India and China with export values of US$1.46 billion and US$1.07 billion respectively. The most likely explanation for export growth in Kenya is the increased market access for Kenyan goods and products to many nations because of the unilateral trade liberalisation framework (WTO 2013).

These findings have also been prompted by the rebounding effect. This impact leads to lower cost reduction for the Kenyan producers who have lower preferential tariff access to import raw materials owing to the tariff reduction for production of export-bound products as shown in Table 8.7.

Table 8.7: Kenyan major exports to the WTOFTA (US$ Million)

Product Code	Product Description	Exports After WTO FTA
27	Mineral fuels, oils and wax	2721.53
15	Animal/vegetable fats , oils	392.10
10	Cereals	270.43
87	Vehicles parts and accessories	237.82
72	Iron and steel	159.16
88	Aircraft, spacecraft, and parts	76.66
30	Pharmaceutical products	75.32

Source: Author's own calculations based on SMART simulations

Kenyan exports probably increased after the adoption of the WTOFTA which include commodities, like Petroleum oils and oils obtained from bituminous minerals, crude oil valued at US$2721.53 million. This is mainly because of Kenya's investment in the oil refinery and exports of its refined products (Ross 2012). The discovery of oil reserves in the Lokichar Basin in Kenya and the anticipated start of commercial oil exploration by 2017 increases expectations of more exports in petroleum products for Kenya in the future (Mutegi 2014).

The second leading export products were animal/vegetable fats, oils and their cleavage products; prepared edible fats; as well as animal or vegetable waxes valued at US$392.10 million. This is followed by cereals with an export value of US$270 million, among other products stated in Table 8.7.

Mugano *et al.* (2013c) assessed the impact of WTOFTA on Zimbabwe. Their findings indicate that with free-trade, resulting from the WTOFTA, exports are predicted to increase with a change of US$157.822 million in export value. These findings are in agreement with this study which also notes an increase in Kenyan exports resulting from their implementing of the free trade agreements.

8.3.5 The impact of WTO FTA on Kenyan imports
The WTO has on several occasions stood by its campaigns to open up the borders for International trade. This included the exchange of capital goods and services across the different international borders or territories (IMF 2015). The WTO is recently waging war against non-tariff barriers, which now remain as the biggest threat to liberalised trade practices. The non-trade barriers have taken the form of discriminatory non-tariff procedures (NTMs), and these are forced by governments to favour domestic over foreign suppliers. The importing of hurdles can also take the form of procedural obstacles that are mainly meant to frustrate international trade (Nicita & Gourdon 2013).

Many developing nations, including Kenya have applauded trade liberalisation as having a positive impact on their country's imports. Among the effects of the free-trade agreements – so much felt in Kenya – are the lower prices and improved quality of goods sold (McGovern 2015). This, therefore, makes it necessary for this study to assess the effects of the WTOFTA on Kenyan imports in general as this is one of the main aims of this study.

Table 8.8 shows the quantity of imports before and after the implementation of the recommendations from the WTOFTA. The table also included import change values realised before and after the WTOFTA.

Table 8.8: Total imports into Kenya from WTOFTA (US$ Millions)

Trading Partner	Imports Before WTO FTA	Imports After WTO FTA	Import Change
WTO	11,124.51	12,119.67	995.16

<u>Source</u>: Author's own calculations based on SMART simulations

In making use of the market view from the WITS/SMART simulations approach, this study was able to identify Kenya's imports before the WTO free-trade treaty. These amounted to US$11.12451 billion. The Kenyan imports realised after the effecting of the WTOFTA amounted to US$12.11967 billion. This meant that with the implementation of the WTO free-trade agreement, the total national imports were set to rise by US$995.16 million.

These findings are consistent with those of Mugano *et al.* (2013c) who assessed the impact of the WTO free-trade agreement on Zimbabwe. Their findings confirmed that after the implementation of the WTO free-trade agreement, an expected increase in imports was realised; which yielded similar outcomes to those of this study.

These results also agree with the findings of Alfieri *et al.* (2006) who examined the impact of the WTO free-trade pact on Mozambique, after the unilateral implementation of the WTOFTA terms of trade. Their findings were similar to the findings of this study; where they were able to experience an increase in imports. This is also in line with economic theory, as rational economic agents import more, due to the advancement in their cash flows (Maskus & Chen 2002). This therefore confirms that as the free-trade agreement takes place, imports would most probably increase due to the elimination of tariffs, which have been a barrier to trade.

After the discussion on the total imports, this study also deemed it necessary to determine which commodities and products yielded the highest value of imports after the implementation of the free-trade agreement. Table 8.9 gives the list of

commodities with the highest import value after the implementation of the WTO free-trade pact in Kenya.

Table 8.9: Products with the highest import values after WTOFTA (US$ Millions)

HS Code	Product Description	Imports before WTO FTA	Import change after WTO FTA
27	Mineral fuels, oils and wax	1557.83	243.12
10	Cereals	201.28	92.61
17	Sugars and sugar confectionery	70.59	30.17
25	Salt, sulphur, earths, stone	52.59	26.30
52	Cotton	36.34	21.17
63	Made-up textile articles	51.94	16.12
87	Vehicles, parts and accessories	148.07	15.90
60	Knitted or crocheted fabrics	10.69	15.64

Source: Author's own calculations based on SMART simulations

As is evident in table 8.9 the leading import products with the highest import change after the WTO free-trade agreement are mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes with an import change value of US$243.12 million and an import value of US$1557.83 million. It is also clear that petroleum products were also among the highest exported products with an export value of US$2721.53 million.

This confirms that Kenya imports crude oil and after refining it, it exports the refined products. This also indicates Kenya's gains from the value addition in the crude oil evidenced by the bigger difference between the imported products and the exported petroleum products (Darkwah, 2012). This was followed by cereals, with an import value of US$92.61 million. The third commodity with the highest import change value comprised sugars and sugar confectionery, which was priced at US$30.17 million among other commodities listed in Table 8.9.

8.3.6 Sensitivity tests and Robustness analysis

Because of the need for ensuring the levels of accuracy and confidence of the real values for the Armington and demand elasticities, a rigorous sensitivity analysis became necessary. This was essential to validate the robustness of the findings presented in this study. At the start, a 'base-case' simulation was done through the elasticities from Armington, Stern and Tokarick, as mentioned in Chapter Five. Owing to the probable sensitivity of the models' outcomes for the elasticity values, this study had to re-run the simulations with varying assumptions.

This meant that this study had to test for the upper bound limits, then the lower bound limits, as shown in appendices 1(a), 1(b), 1(c), 1(d), 1(e) and 1(f). The findings were also tested by using an elasticity of 6 which was needed for the worst-case scenario, specifically for determining the impact of the WTOFTA on Kenya; because of its ability to provide for the biggest possible impact of the WTO free-trade agreement on Kenya.

Appendix 1(a) presents the sensitivity analysis and the robustness checks for the trade-creation implications for Kenya after ratifying the WTO free-trade agreement. The researcher firstly reduced the elasticity of trade to 0.5, but it showed no change from the base case in Kenya. The same results were replicated when the trade elasticity was manipulated to 2 and 6, respectively. This means that no change was realised. The findings indicate that Kenya's total difference in imports remain similar in value, although the structure thereof varies, as economic agents substitute across the various imports.

Appendix 1(c) also presents the sensitivity analysis and the robustness tests on the revenue outcomes after the execution of the WTOFTA. After reducing the elasticity of trade to 0.5, the revenue maintained a loss of US$ 875.15 million. This study also examined the increase of trade elasticity between 2 and 6, and found that for the revenue losses in both cases, the revenue loss remained at US$875.15 million. The resultant deviating outcomes from the median ground

results are generally insignificant. Using the middle-ground estimations, the indication is that these results could be within sight of the possible required sizes.

This study carried out the sensitivity analysis and the robustness evaluations for the welfare conditions in Kenya illustrated in Appendix 1(d). Welfare gains of 0.04 per cent were realised on reduction of the elasticity to 0.5. The welfare further gained when manipulation of elasticities of 2 and 6 was done, leading to 0.023 per cent and 0.034 per cent, respectively. The boundary of error can be considered conservative but acceptable; and the resulting deviations after the middle ground results are insignificant. Therefore, the middle-ground estimations could be within sight of the potential required sizes.

Appendix 1(e) shows the sensitivity analysis and the robustness assessments on exports in Kenya after the operationalisation of the WTOFTA agreement. On the reduction of the elasticity of trade to 0.5, the export quantities grew by 9.34 per cent. The researcher further adjusted the elasticity of trade to 2 and 6, respectively, which realised an export growth of by 7.84 per cent and 11.15 per cent, respectively. The deviations of expected differences in exports as a percentage of the lower-bound, upper-bound and worst-case scenarios from the base case are 0.03 per cent, zero per cent and zero per cent respectively. The resultant deviation from the middle-ground results is generally insignificant. Based on the middle-ground estimates, these could be within sight of the probable required sizes.

Appendix 1(f) presents the findings of the sensitivity examination and the robustness checks on imports in Kenya after the unilateral implementation of the WTOFTA. On reduction of the elasticity value to 0.5, the findings showed no change in the imports resulting from trade creation after the base case in Kenya. The same was experienced after increasing the trade elasticities to 2 and 6, which still yielded no differences to the trade-creation effect. These findings demonstrate that Kenya's total change in imports would be similar in

value; although the structure thereof varies as economic agents inter-change across the different imports.

8.4 Summary

This chapter assessed the impact of the WTOFTA in Kenya. It mainly used the WITS/SMART model approach to examine the implications and effects of the WTOFTA on trade variables, such as trade creation, trade diversion, the revenue effects, the welfare effects, the exports and import quantities. All these were done in an attempt to answer the research questions and meet the research objectives.

This study noted that Kenya was expected to have a trade-creation effect that would offset the trade-diversion effects. The net welfare gains would eventually benefit the Kenyan producers and consumers, after the unilateral acceptance of the WTOFTA. It also noted that upon withdrawal of all the tariff barriers to trade imports from the WTO member states and the imposition of the common external tariff agreed on by the WTO member states, the resultant effect would be trade expansion valued at US$995.16 million. Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes have registered the highest trade creation effects of US$447.47 million. This was followed by cereals valued at US$98.89 million. The third-largest trade creation effects were valued at US$30.17 million among the other products mentioned in Table 8.3.

The results from the WITS/SMART model indicate that Kenya, as an importing country has experienced a neutral trade diversion effect. The neutral state of the trade diversion effects had no influence on the overall import quantities; but it could lead to re-allocation of the market shares amongst its exporting partners, based on the latest relative prices. It is also noted that the growth in imports from the WTO member states can be stabilised by the decrease in imports from the rest of the world, which makes the trade diversion equal to

zero and causes the trade creation to be the only influence on the aggregate social welfare.

When assessing the fiscal revenue losses from WTO free-trade agreements, it was noted that Kenya incurred quite significant losses valued at US$817.15 million, when examined by using the WITS/SMART. This model was also used in assessing the consumer welfare gains from the implementation of the WTO free-trade agreement. The finding was that Kenya would be experiencing consumer gains valued at US$103.98 million. Among the commodities contributing to cereal production, the highest consumer welfare effects were valued at US$21.38 million, followed by sugars and sugar confectionery worth US$13.11 million.

The third group of products with the highest welfare effects were mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes worth US$6.95 million, among other products stated in Table 8.5. This study finds it significant that the items identified to sustain higher government revenue losses are the same commodities that yield the highest welfare effects. This implies that the major losers in revenue should be viewed in the basket of goods adding up to the welfare gains – simply because these products turn out to be low-cost to households – thereby, increasing the welfare effects.

On assessing the effects of the WTO free-trade arrangement on the exports, the study noted that there was an expected increase in exports by US$995.16 million if Kenya unilaterally liberalised its trade arrangement within the WTO. The main Kenyan exports that increased after the adoption of the WTOFTA include commodities, such as petroleum oils and oils obtained from bituminous minerals, as well as crude. These were valued at US$2721.53 million. The second leading exports were animal/vegetable fats, oils and their cleavage products; prepared edible fats; animal or vegetable waxes valued at US$392.10 million. This was followed by cereals, which had an export value of US$270 million among the other products listed in Table 8.7.

It was found that import growth was a resultant effect of the advancement in the various economic agents that included cash flow reduced importing costs and the withdrawal of non-tariff barriers. The key imports into Kenya comprised mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes with an import change value of US$243.12 million and import value of US$1557.83 million. The petroleum products were also among the highest exported products with an export value of US$2721.53 million. This was followed by cereals with an import value of US$92.61 million. The third commodity with the highest import change value was sugars and sugar confectionery, which was estimated at US$30.17 million among the other commodities cited in Table 8.9.

From the above-mentioned analysis, it is clear that Kenya is most likely to incur losses as a result of being part of the WTOFTA. This would take place through the adjustment of the current tariff structure. The trade-creation effects seem to pose a serious risk to the local industry. The welfare gains are anticipated to be too insignificant to be compensated for through the revenue loss in Kenya.

The sensitivity test and robustness analysis of the findings of this study were done with the aim of determining whether the correct limits were being used in the study during the simulation processes using the WITS/SMART model. The findings confirm that these were reliable.

In the following chapter, the empirical findings and the results of the impact of the COMESAFTA and the CET on Kenya will be presented. The presenting of the WITS/SMART simulation results and their examination, which is intended to address the research question posed here, will also be examined in this study.

CHAPTER NINE
THE IMPACT OF COMESA COMMITMENT'S ON KENYA

9.1   Introduction

Kenya, like many other developing African nations, believed that the establishing of the regional free-trade zones and the customs union protocol would effortlessly translate into economic prosperity and growth; but this may not have been the case (OECD 2011). The non-tariff barriers and infrastructural failures have continued to hamper the progress in trade within the region. UNCTAD (2008) has attributed the growth in Africa to be the result of trade liberalisation. This was due to the elimination of all tariff and non-tariff barriers within the free-trade zones (McGovern 2015). Land-locked countries, like Burundi, Ethiopia, Uganda, Rwanda, Zambia and Zimbabwe have been able to acquire a transport corridor through harmonised transit charges that enabled them to trade more easily (EAC 2014; OMESA 2014). The yellow card vehicle insurance system has been operationalised in COMESA member countries to ease cross border trade (Deardorff & Alan 2014).

This chapter is organised with reference to the two broad paths. Section 9.1 comprises the introduction to the study. Section 9.2 mainly deals with the contrast assessment between Kenya's tax and tariff structure versus that of the COMESA CU. In section 9.3, this study examine the WITS/SMARTS simulation results, which includes the results from trade creation, trade diversion, imports, exports, and revenue, as well as the welfare effects of the COMESA CU. Section 9.4 assesses the impact of the COMESA FTA on Kenya, also looking at trade creation, trade diversion, imports, exports, and revenue, as well as welfare effects. The chapter concludes with a summary in Section 9.5.

9.2   Comparison of Kenya's tariff structure and the COMESA CU

The complexity of Kenya's tariff structure reveals that Kenya has high tax and tariff rates in the form of double taxation. Kenyans pay local government tax and national government tax; thus effectively paying double tax (OECD 2011).

This implies that Kenya has to work on changing its current taxation system and regime (COMESA 2014).

Kenya's tariff structure is more multifaceted compared to the COMESA FTA. This is evident as Kenya is among the few nations with higher tariff rates, of which, some are above 100 per cent on only 634 tariff lines, that is, 9.92 per cent of total tariff lines are zero rated duties (GOK 2013). This therefore, implies 81 per cent of the tariff lines are not liberalised. This is also because only 19 per cent of the total tariff lines are in compliance with the common external tariff. Kenya derives much of its revenue from customs revenue from the various land-locked countries in East Africa and the COMESA region, among its other neighbours. This, therefore, means that customs revenue is a significant source of government revenue for Kenya.

Chapter Nine of this study analyses the results, the findings and the implications of the COMESA CU and COMESA FTA on Kenya. It estimates the effects of the various trade policies on trade variables, such as the trade-creation effect, the trade-diversion effect, the quantity and quality of exports and imports, then revenue and welfare effects on Kenya. The study uses the WITS/SMART simulation-approach model to estimate the effects of the trade policies and year 2008 as its base year for the simulation modelling. This is due to the availability of the latest data on Kenya in the WITS/SMART software and the fact that this model makes use of the trade-information databases, such as UNCTAD's TRAINS database, COMTRADE and WTO-IDB.

In this case, the WITS/SMART modelling approach is used in the examination of the COMESA CU. The COMESA nomenclature for raw materials is zero per cent, capital goods being zero per cent, intermediate goods 10 per cent and final goods 25 per cent. In the case of the COMESA FTA, a zero per cent tariff is applied to all the tariff lines imported by Kenya from the COMESA member States (COMESA 2014). These tariffs from the COMESA FTA and COMESA CU are applied in the WITS/SMART model against the real data supplied by

the Kenya Revenue and Customs Authority in 2008 and saved in the TRAINS databases.

The FTA and the CU are quite distinct from the 2008 tariff rates applied. This would therefore enable this study to assess the effects of COMESA CU and the COMESA FTA on trade variables, such as the trade-creation effect, the trade-diversion effect, the exports, the imports, the revenue and the welfare-creation effects, which form part of the aims of this study.

9.3   Comparison of Kenya's Tariff Structure with the COMESA FTA

Kenya's tariff structure is more multifaceted compared to the COMESA FTA. This is evident as Kenya is among the few nations with higher tariff rates; some go above 100 per cent. Only 634 tariff lines, that is, 9.92 percent of total tariff lines are zero rated duties. This therefore implies 81 per cent of the tariff lines are not liberalised.

9.4   The WITS/SMART Model Simulation Results

This section presents the findings and the outcomes of the effects of COMESA FTA and the COMESA CU on trade indicators, such as the trade-creation effect, trade diversion-effect, exports, the imports, and the revenue and welfare implications, making use of the WITS/SMART simulations model.

9.4.1 The COMESA CU

The findings on the influence of the COMESA CU on Kenya are presented with specific focus on the effects of the COMESA CU protocol-trade indicators. These trade indicators are similar to the trade-creation effect, trade-diversion effect, exports, imports, and revenue and welfare effects; and form part of the main aims and objectives of this study.

9.4.1.1 Trade creation

In this section, trade creation reveals that more competent and lower-cost manufacturers in any of the COMESA member states would be able to displace

or dislodge the less-competent or the high-cost producers from Kenya. This also, therefore, implies that the Kenyan consumers are bound to benefit from better quality goods at cheaper or reduced prices. Kenyan producers may be negatively affected; as their products would lose the market to the more-efficient producers within the region (other COMESA countries). This also means that nationwide monopolies would be broken, since other producers would come into the market, thereby increasing the number of suppliers of these commodities. Fierce competition may arise from the producers in Kenya and the other COMESA countries. Kenyan firms may be obliged to improve their production capacity in order to produce superior quality and at the cheapest cost, when compared to the rival firms within the COMESA region.

On the other hand, trade diversion mean that the more-competent producers and suppliers from outside the COMESA CU protocol would be displaced by the less-competent rival producers and suppliers from within the COMESA member-states in the Customs Union. This would cause Kenya to lose customs revenue through imports from the countries that are now members of the CU protocol. It also implies that most efficient producers from the rest of the world would also be locked out as their goods would be more expensive after the introduction of the CET to all traders outside the Customs Union. This justifies the need to assess the trade-creation and trade-diversion effects on Kenya, using the WITS/SMART model approach after the adoption of the COMESA CET. This is illustrated in Table 9.1.

Table 9.1: Trade creation COMESA CU (US$ Millions

Partner's Name	Trade Creation
Raw Materials	93.75
Intermediate Goods	68.24
Finished Goods	40.39
Capital goods	108.12
Total	**310.50**

Source: Author's own calculations based on SMART Simulations

The outcome of the study from the WITS/SMART model simulations in Table 9.1 implies that Kenya is expected to gain total trade-creation effects of US$310.50 million without any significant trade diversion effect from the COMESA CU protocol. This is quite favourable for the local consumers, since it implies that the expected gains from the trade-creation effects would be higher resulting from increased quality of goods and reduced prices. It also implies increased welfare gains for the Kenyan consumers if Kenya implements the COMESA CU protocol. These Kenyan industries are likely to be affected by the trade creation effect resulting from the COMESA CU. Products and commodities most likely to be affected are listed in Table 9.2.

Table 9.2: Products with the Highest Trade-Creation (US$ Millions)

HS Code	Product Description	Trade Creation
17	Sugars and sugar confectionery	13.56
10	Cereals	12.96
24	Tobacco and its manufactured substitutes	11.73

Source: Author's own calculations based on SMART Simulations

The commodities with the highest trade creation effects are sugar, cereals and tobacco valued at US$13.56 million, US$12.96 million and US$11.73 million respectively as shown in Table 9.2.

These outcomes are in agreement with the outcome of the *ex-ante* studies. Therefore, this indicates that their trade-creation effect implies that the Kenyan consumers are expecting better economic times. These findings are in line with those of Amponsah (2002), Cernat (2003) and Mugano *et al.* (2013), which agree that trade creation effects come from the COMESA CU trade agreement.

9.4.1.2 The revenue effect in COMESA CET

The primary goal of every nation, including Kenya entering into trade-liberalisation practices, is to increase revenues through other benefits, which are also quite necessary and cannot be ignored (Handley & Limão 2013).

Handley (2014) noted that when analysing revenue effects, it is necessary to acknowledge that the main goals of the imposition of taxes are primarily the generation of revenue, which is vital for running government operations.

This raises the question of whether trade liberalisation has worked in government's favour in raising more revenue to meet its obligations, or whether it has worked against this principle. For this reason this study made use of the WITS/SMART model approach to assess the revenue implications of the COMESA CU on Kenya. Table 9.3 illustrates the revenue effects of COMESA CU on Kenya, recorded in US$ millions.

Table 9.3: Revenue effects of COMESA CU on Kenya (US$ Millions)

Product Category	Revenue Effect
Finished Goods	-71.41
Intermediate Goods	-46.80
Capital goods	-113.34
Raw Material	-96.42
Total	**-327.97**

Source: Author's own calculations based on SMART Simulations

The findings from the WITS/SMART simulation estimates revealed that Kenya is expected to experience a total fiscal revenue loss as a result of being part of the COMESA CU agreements. It was also noted that Kenya stands to lose customs revenues amounting to US$327.97 million, if it implements the COMESA CU agreements.

The products and commodities which cause the largest losses in the COMESA CU are listed in table 9.4.

Table 9.4: Products with the Largest Losses in COMESA CU (US$ Millions)

HS Code	Product Description	Revenue Loss
10	Cereals	-114.67
17	Sugars and sugar confectionery	-32.96
63	Made-up textile sets	-8.59
87	Vehicles parts and accessories	-8.49

Source: Author's own calculations based on SMART Simulations

The loss contribution of cereals is estimated at US$114.67 million. This is followed by sugar and sugar confectionery worth US$32.96 million. The third group of products comprises made-up textile articles; worn clothing and worn textile articles and rags worth US$8.59 million. The loss value of vehicles, other than railway or tramway rolling stock, and parts and accessories, among other products, is US$8.49 million.

It is important to note that the three leading contributors to the losses are raw materials, which under the COMESA tariff lines are zero-rated in terms of taxes. This attracts competition from the neighbouring countries that produce similar products; hence, Kenya loses much in terms of import duty (COMESA 2014). The local producers would also lose out as their products would face competition from products coming from the other COMESA countries.

This study is in agreement with the findings of the study carried out by Makochekanwa (2012), who assessed the effects of the COMESA, SADC and East African Community (EAC) tripartite agreement on Zimbabwe. Makochekanwa found that Zimbabwe stood to lose US$71.2 million in customs revenue, if it went ahead and adopted the tripartite pact. It also noted that 19.5 per cent of the customs revenues collected in 2012, along with 2.5 per cent of the total revenue collected during the same period was quite a significant sum to lose as a result of adopting the COMESA/SADC/EAC.

9.4.1.3 The consumer-welfare effect

Consumer-welfare refers to the individual benefits derived from the consumption of goods and services. Bernheim (2008) stated that consumer-welfare is a matter of an individual's own assessment of his/her contentment, bearing in mind the given prices and incomes. This raises the issue that the exact measurement of consumer-welfare requires information about the individual tastes and preferences.

Based on the above, this study will endeavour to assess whether the consumers in Kenya received extra satisfaction through lower prices or better quality goods after the implementation of the COMESA CU agreement. The level of consumer satisfaction has a direct bearing on the extent of trade creation as opposed to trade diversion. Table 9.5 shows the levels of welfare effects and their values in US$ relative to the gross domestic product in 2015.

Table 9.5: Welfare effects of COMESA CU on Kenya (US$ Millions)

Product category	Welfare in US$ million
Capital goods	7.93
Raw materials	13.39
Finished goods	21.69
Intermediate Goods	13.25
TOTAL	**56.27**

Source: Author's own calculations based on SMART Simulations 2016

In Table 9.5, the findings show that Kenya is expected to register a consumer-welfare effect of US$56.27 million as a result of implementing the COMESA CU pact. It is, however, vital to note the presence of the welfare effect, but when expressed as a ratio of Kenya's GDP of US$60.94 billion in 2014, it is quite insignificant, as it is less than 0.001 per cent.

The capital goods are expected to register a welfare gain of US$7.93 million, followed by the raw materials, amounting to US$13.39 million. The third item

include finished goods, with a consumer-welfare effect of US$21.69 million and finally, the intermediate goods of US$13.25 million.

These findings are important in respect of capital goods, as they reveal the estimated improvement in consumer welfare (Table 9.5). There is increase in consumer-welfare effects after the removal of import duties, which translates into increased consumer savings. The assessment of finished goods showed that when the tariff is reduced to 25 per cent, the results show a significant decrease in consumer prices, which were high due to high import duties prior to the formation of the customs union.

These results agree with those of Mugano *et al.* (2013a) who assessed the impact of COMESA CU on Zimbabwe. Their findings are similar to those of this study; both register welfare gains. Kenya's expected welfare gains are US$56.27 million, whereas Zimbabwe is expected to register welfare gains of US$15.649 million. These gains are regarded as positive; but they are quite insignificant compared to the countries' Gross Domestic Product for the past five years.

The findings by Makochekanwa (2012), when estimating the effects of the COMESA/SADC/EAC tripartite agreement, found that the related outcomes of a welfare gain would be US$14.4 million for Zimbabwe. This is also similar to the findings of this study.

9.4.1.4 The impact of COMESA CU on Kenyan exports

Trade liberalisation has been used by most of the developed and developing countries to provide market access to countries beyond the boundaries of the participating member states (Deardorff, 2014). This study examined the effects of exports on Kenya, as result of opening up its borders to the 18 COMESA member countries, which are part of the COMESA CU agreements.

Using the WITS/SMART model, the study addresses the research problem of whether COMESA has reduced Kenya's export problem, or whether Kenya's exports have suffered as a result of being part of the COMESA CU. Table 9.6 shows the export figures for Kenya, derived from the WITS/SMART simulation approach. The table presents the aggregate effects of the trade liberalisation on Kenya, based on the export figures of raw materials, capital goods, intermediate goods and finished goods.

Table 9.6: Impact of COMESA CU on Kenyan exports (US$ Millions)

Product Category	Exports before	Exports after	Change in exports
Capital Goods	3.54	2.90	-0.64
Raw material	89.78	85.48	-4.30
Intermediate goods	157.23	156.36	-0.87
Finished goods	165.63	149.40	-16.23
Total	**416.19**	**394.14**	**-22.04**

Source: Author's own calculations based on SMART Simulations

As is evident from the findings obtained from the WITS/SMART model approach, Kenya is expected to have a drop in its export quantities as a result of being part of the COMESA CU protocol. Table 9.6 indicates that there would be a drop from US$416.19 million before the customs-union protocol, to US$394.14 million after the customs-union protocol. This leads to an expected drop of US$22.04 million in the exports of these goods.

The increase in the cost of intermediate goods used in the production process could be the major contributor to the drop in the export quantities after the COMESA CU. On becoming a member of the COMESA CU, the intermediate rates ought to have been adjusted to a higher rate of 10 per cent as most of the goods imported into Kenya under the COMESA CU agreement of intermediate goods were classified in a tax bracket ranging from 0 to 5 per cent, which constitutes 35.3 per cent of the total tariff lines (COMESA 2014).

The rise of imports into Kenya is expected to have a negative effect on the competitiveness of the export intermediate products, which comprise the bulk of Kenya's exports.

This study is in agreement with the findings of Mugano *et al.* (2013a) who assessed the impact of the COMESA CU protocol on Zimbabwe. It was noted that there was a drop in the quantity of exports from US$826.130 million before the COMESA customs union protocol to US$809.775 million after the COMESA CU, constituting an export change of US$16.355 million. The drop in the quantity of exports is also attributed to the increase in the intermediate products used in production, which is similar to the findings of this study.

Similar results were also noted on studies carried out by Castro, Kraus and de la Rocha (2004), where they found related results in Uganda. Castro *et al.* (2004) noted that Uganda's MFN was lower than the CU; and for this reason, trying to rearrange them weakened the nation's competitiveness; as the cost of production increased, due to the high cost of imported inputs.

It is important to note that the bulk of Kenya's exports are primarily raw materials and semi-finished goods (intermediate goods), which make up 61.36 per cent of the total exports after the COMESA CU agreement. This is a disquieting outcome for Kenya, taking into consideration the vulnerability of export revenue due to volatile prices and the low-income elasticity of the exported primary goods.

9.4.1.5 The impact of COMESA CU on Kenyan imports

The effect of the COMESA CU and trade liberalisation on Kenya's import performance has been a key issue of debate for all trading partners in the economic bloc. The tax and tariff alignment accomplished by the CU affects Kenyan imports in two ways. The first are the tariff lines that, according to COMESA (2014), are anticipated to be phased down; this would probably have a positive influence on imports. Secondly, there are those tariff lines which

have to be aligned upwards and are predicted to negatively influence imports in Kenya (Cali & te Velde 2008).

The influence of the COMESA CU on Kenyan imports is not apparent. Hence, this study used the WITS/SMART model to determine the impact of the COMESA CU on the Kenyan imports, which is another objective of this study.

Table 9.7: The Impact of COMESA CU on Kenyan Imports (US$ Millions)

Product category	Imports before	Imports after	Import change
Raw material	1,720.42	1,814.17	93.75
Intermediate goods	2,936.68	3,004.92	68.24
Finished goods	3,779.08	3,819.47	40.39
Capital goods	2,655.19	2,763.31	108.12
Total	**11,091.37**	**11,401.87**	**310.50**

<u>Source</u>: Author's own calculations based on SMART Simulations

It is essential to note that the Kenyan imports are expected to grow, as is evident in Table 9.7. The table also indicates that Kenyan imports would grow from US$11.091 billion before the CU to US$11.402 billion after joining the COMESA customs union which, brought about an import change of US$310.50 million. The data in Table 9.7 confirm that the increase has been influenced by the capital goods, which registered the highest import change of US$108.12 million followed by raw materials with an import change of US$93.75 million, intermediate goods with an increase of US$68.24 million and lastly finished goods with and import change of US$40.39 million.

The analysis of Kenya's tariff structure shows that tariffs above 25 per cent, excluding the non-tariff measures, constitute a quite significant quantity of revenue to the nation. Thus, the resolve to adjust these tariff structures downward to 0 per cent; as recommended in the COMESA common tariff nomenclature for capital goods. This is predicted to result in a fall in the prices

of products, thereby stimulate imports, as consumers would be saving more, which in turn is applied for acquiring more imports.

These findings are confirmed by a similar study conducted by Castro *et al.* (2004) in Kenya and Tanzania. Using the WITS/SMART model approach, they assessed the influence of the EACCU protocol on member states. The findings revealed that the EAC common market protocol would have a significant influence on the quantity increase of imports in Kenya and Tanzania.

Bertola and Faini (1991) conducted one of the earliest studies on the impact of trade liberalisation on the import volumes of developing economies. They sought to determine the quantity change of imports after the elimination of tariff and non-tariff barriers. In their study of Morocco, they found that quantitative restrictions (QRs) had a significant impact - not only on the level of imports - but also on the level of economic welfare of the citizens. This justifies the findings of this current study that concomitant with trade becoming liberalised through COMESA CU, imports increase on account of enhanced consumer-welfare as a result of reduced prices and the improved quality of products.

9.4.2   COMESA Free-Trade Agreement

This section of this study describes the evaluation of Kenya's tariff arrangement and that of the COMESA Free-trade Agreement. The study primarily used the WITS/SMART model to examine the impact of the FTA on Kenya's economy. Much emphasis is placed on the possible effects of the COMESA FTA on trade variables, such as trade-creation effects, trade-diversion effects, revenue, imports, exports and welfare effects, in line with the objectives of this research.

9.4.2.1   Trade creation and trade diversion

Trade creation takes place when a more efficient and lower cost producer from any of the COMESA FTA would dislodge a less-efficient producer or a high-cost producer in Kenya. The most probable implication is that the consumers from Kenya would be expected to benefit in terms of low prices, along with

improved quality of goods from the superior producer from the COMESA free-trade area. This also comes with negative implications for Kenya when some Kenyan products would be substituted in favour of the more-efficient and lower-priced goods from the COMESA FTA markets. This would force Kenyan producers and manufacturers to improve their production methods to produce better quality products at lower prices to compete with their business competitors in COMESA.

On the other hand, trade diversion takes place when competent producers from the rest of the world (outside the COMESA region) would be displaced to pave way for less-competent and high-cost producers from the COMESA FTA region. This would be costly for the Kenyan consumers – simply because a cheaper producer has been locked in, due to the tariffs on foreign producers. It also means the country would lose revenue that was previously collected from nations that were not then part of the free-trade agreement. Hence, this study applied the WITS/SMART model approach to assess the trade creation and trade diversion effects, as Kenya is part of the COMESA FTA.

Table 9.8:   Nations with leading trade creation from COMESA FTA (US$ Millions)

Partner name	Trade creation	Trade diversion	Trade total effect
DRC	8.55	2.41	10.97
Seychelles	0.72	0.00	0.72
Ethiopia	0.21	0.19	0.41
Others	6.02	0.00	6.02
Total	**15.51.**	**2.61**	**18.12**

Source: Author's own calculations based on Smart Simulations

These findings shown in Table 9.8 are very necessary for Kenya in policy-making and negotiation purposes. Kenya was expected to register a total trade creation of US$15.51 million and US$2.61 million in trade-diversion effects.

This implies that the coming into effect of the COMESA FTA raises the expectation of US$15.51 million trade expansion.

Table 9.8 also indicates that the country in the COMESA FTA that has the largest trade-creation effects is the Democratic Republic of Congo with a trade-creation effect of US$8.55 million. This is followed by the Seychelles with a trade-creation effect of US$0.72 million, then Ethiopia with a trade creation effect of US$0.21million. The other nations in the COMESA FTA have a total trade creation effect of US$6.02 million.

Trade creation is generally viewed as a positive indicator for the consumer as it represents the additional quantities the consumers can afford, and which have been improved by the trade-liberalisation effects (Lang 2006). On the other hand, some of these increments in consumption expenditure may be at a disadvantage to national producers. The national producers and suppliers would lose out, if the products concerned were procured from regional producers' *ex-ante*. This study sought to determine which commodities provide the highest trade-creation effects, as shown in Table 9.9.

Table 9.9: Products with highest trade creation in COMESA FTA (US$ Millions)

HS Code	Product description	Trade creation
24	Tobacco and its manufactured substitutes	9.00
30	Pharmaceutical products	0.60
27	Mineral fuels, oils, waxes and product	0.56
93	Arms, ammunition parts and accessories	0.43
71	Precious stones, metals, jewellery and coins	0.21

Source: Author's own calculations based on Smart Simulations

Due to the different levels of aggregation, trade creation was spread evenly across the different tariff lines. The products that are likely to bear the largest trade creation are tobacco and manufactured tobacco substitutes, which have a

value of US$9.0 million. This is followed by pharmaceutical products among other products and commodities listed in Table 9.9. This study notes that the commodities with the highest trade creation are primary products (tobacco, partly or wholly stemmed/stripped) with zero-rate tariffs, which are gaining after the COMESA FTA.

Tobacco and its products are produced in Kenya by two companies, the British American Tobacco Company and the Mastermind Tobacco Company. The two manufacturers contribute significantly to Kenya's GDP growth through providing jobs, taxes and infrastructure. The exported tobacco has proven to be much cheaper than that consumed in Kenya; as it attracts 48 per cent tax in the retail pricing. This is mainly to discourage the over 2.5 million people in Kenya from using tobacco and suffering smoking-related diseases according to Global Adult Tobacco Survey (GATT 2014).

Trade diversion effects are very low and insignificant. This is an indicator that COMESA FTA member states and nations have a low level of production efficiency compared to that of the MFN firms and industries outside COMESA.

The findings of this study are in line with the studies conducted by Cernat (2003); Bilal, Dalleau and Lui (2012); Meade (1955) and De Melo and Tsikata (2015). These studies all found that the tariff and tax rates of a number of regional trade agreements were too weak to divert any trade from third parties.

9.4.2.2 The revenue effects

Hindriks and myles (2013) argued that every government has a primary obligation to raise sufficient revenue to meet the country's current and developmental expenditure. Hence, the revenue effect is a primary objective and reason why most governments levy taxes and duty on imports. These revenues obtained through taxes are important for governments to achieve their economic and developmental goals.

The effects on fiscal revenue due to COMESA FTA are contentious to most member states of COMESA, which includes Kenya. This poses the question whether tariff cuts to the COMESA member states would be compensated for through trading arrangements with other members in the Economic Bloc. This study deemed it necessary to assess the effects of trade liberalisation on government revenue using the WITS/SMART model as shown in Table 9.10.

Table 9.10: Revenue effects of COMESA FTA on Kenya (US$ Millions)

HS Code	Product description	Revenue (LOSSES)
85	Electrical machinery and equipment	-1.91
48	Paper and paperboard; articles of paper	-2.97
Other	Other products	-3.00
TOTAL		**-7.88**

Source: Author's own calculations based on Smart Simulations

Kenya is among those countries which are obliged to embark on a robust transformation of its national tax and tariff structures. This would be proof of compliance with the recommendations of the COMESA CU protocol when taking up the new COMESA FTA rates. It is significant to note that all of Kenya's tariff lines are to be zero-rated. This implies that all the tariff lines, excluding the 20 per cent of the various products that are categorised as being sensitive, would have to be liberalised.

Table 9.10 illustrates the revenue implications of COMESA FTA on Kenya. Using the WITS/SMART model approach, this study determined that Kenya would suffer an estimated loss of US$7.88 million after enacting the COMESA FTA which represented 0.13 per cent of Kenya's GDP in 2014.

The loss in revenue is fairly insignificant compared to Kenya's GDP of US$60.94 billion in 2014. Although the loss of revenue is of concern to the nation, it is important to note that most taxes and tariffs are quite low, and any movement to duty-free status would not have a significant impact on revenues.

The main product lines that would suffer severe losses of US$2.97 million include paper and paperboard and articles made of paper pulp, paper, or paperboard. A cumulative loss of US$1.91 million is shown in Table 9.10 for electrical machinery and equipment, including their parts, as well as sound recorders, reproducers, television screens, sound recorders and reproducers, and parts and accessories of such articles.

The findings of this study are consistent with those studies conducted by Makochekanwa (2012), who observed that Zimbabwe would lose US$71.2 million in customs revenue, if it were to adopt the tripartite FTA of COMESA, SADC and East African Community (EAC). Thus, the adoption of the FTA would lead to losses; although the degree of significance of losses would vary.

Brenton, Hoppe and Uexkull (2007) estimated the possible effects of the COMESA FTA on Ethiopia, Madagascar, Malawi and Zambia. The results revealed that the influence of the COMESA FTA was quite insignificant, as all the countries would be expecting to lose less than 1 per cent of their total revenue.

9.4.2.3   The consumer-welfare effects

The consumer-welfare argument is important as a state should be able to account to its citizens how they stand to benefit from these trade agreements (Antle 2015). Table 9.11 shows the consumer-welfare effect after implementing the COMESA FTA.

Table 9.11: Consumer-welfare effects after COMESA FTA (US$ Millions)

HS CODE	Product Description	Welfare
48	Paper and articles of paper	0.59
85	Electrical machinery and equipment	0.19
24	Tobacco and manufactured tobacco substitutes	0.03
TOTAL		**1.06**

Source: Author's own calculations based on Smart Simulations

It is estimated that Kenya would obtain a consumer-welfare effect of US$1.06 million after the implementation of the COMESA FTA protocol. Although it is an acceptable indication of no welfare loss it is none-the-less quite insignificant, as it is but a fraction of Kenya's total GDP of US$60.94 billion for the 2014/2015 financial year.

This study found that among the benefits possible to be obtained from the customs union protocol, were lower prices and high quality goods. It would also depend on the extent of trade creation against trade-diversion effects (Viner 2014). This study used the WITS/SMART simulations approach to assess the impact of the COMESA free-trade agreement on the consumer-welfare effects.

It is noteworthy that the contributions to welfare growth arise from similar sources as those that yield trade creation effects in Kenya. There is, therefore, a causal link between welfare gains and trade creation in Kenya. Among the key reasons for the marginal gains in welfare, is that the base year was used to do the simulations in this study, namely 2008; which was roughly at the closing stages of the implementation of the COMESA FTA, launched in 2000, and expected to be fully implemented by 2008. Therefore, the trickling effect of the COMESA FTA had not been felt in the economy through any increased consumer-welfare.

This study also investigated which of the commodities traded between Kenya and the COMESA member states were the largest contributors to the total welfare in Kenya. Table 9.11 lists the commodities with the largest welfare effects after implementation of the COMESA FTA in Kenya. These commodities are paper and paperboard; articles of paper pulp, paper or paperboard valued at US$0.59 million. The second largest category of commodities comprise electrical machinery, equipment and parts; sound recorders, reproducers, television screens, sound recorders and reproducers, and parts and accessories of such articles with a welfare effect of US$0.19

million. The latter, among other products, is followed by tobacco and manufactured tobacco substitutes valued at US$0.03 million.

In this regard, the finding of this study concurs with the findings of Mugano *et al.* (2013). They evaluated the impact of the COMESA free-trade agreement on Zimbabwe. Their findings estimated Zimbabwe's welfare gains to be US$0.634 million by being part of the COMESA free-trade agreement. Both studies agreed that the welfare gains, although insignificant, were acceptable.

Makochekanwa (2012) assessed the impact of the implementation of the COMESA, SADC and EAC tripartite agreement on Kenya. The findings estimated Kenya's welfare gains to be US$14.4 million after the tripartite agreement is implemented. Makochekanwa did not state the expected welfare gains of the three separate trading blocs independently.

The findings of this study are supported by those of McKay *et al.* (2005) and Karingi *et al.* (2005). Both studies concur that with the implementation of the COMESA FTA there was evidence of welfare gains for the citizens of the COMESA countries. It was however, of too little effect to be felt by the ordinary citizens of those countries.

9.4.2.4   The impact of COMESA CET on Kenya's exports

Baldwin and Venables (1995) stated that trade-liberalisation ventures provide additional market access to member states in a FTA protocol. This raises the issue whether Kenya was able to penetrate the 18 new markets in the COMESA. This is one of the objectives of this study. Using the WITS/SMART simulation model, this study examined the impact of the COMESA free-trade agreement on Kenyan exports. The findings are presented in Table 9.12.

Table 9.12: The impact of COMESA FTA on Kenyan exports (US$ Millions)

Partner name	Exports before	Exports after	Export change
DRC	22.68	33.65	10.97
Seychelles	3.19	3.92	0.72
Ethiopia	2.16	2.57	0.41
Comoros	0.11	0.11	0
Djibouti	26.71	26.71	0
Eritrea	0.01	0.01	0
Sudan	0.17	0.17	0
Libya	0.06	0.06	0
Madagascar	0.9	0.9	0
Malawi	5.65	5.64	0
Rwanda	1.32	1.32	0
Swaziland	48.99	48.99	0
Zimbabwe	6.46	6.46	0
Zambia	30.13	30.13	0
Burundi	2.27	2.27	0
Mauritius	18.98	18.98	0
Egypt, Arab Rep.	165.76	165.76	0
Uganda	88.82	86.82	00
Total	**424.35**	**434.28**	**12.1**

Source: Author's own calculations based on Smart Simulations

The WITS/SMART simulation model outcomes indicate that the coming into effect of the COMESA FTA should lead to a marginal increase in Kenya's export volumes. Table 9.12 reveals that before the FTA, COMESA's export volumes stood at US$424.35 million, and after effecting the free-trade agreement, Kenya's exports increased by US$9.93 million to US$434.28.

These results agree with studies carried out by Korinek and Melatos (2009). They attributed the low inter-state trade to inadequate accessories of products traded, along with more supply constraints. They also attributed low export

quantities in developing countries to poor transport and communication infrastructure, production technology and the necessary capital equipment to encourage the production of goods for export.

Table 9.12 reveals that Kenya's exports to the COMESA are skewed towards two countries. These are Egypt and Uganda, which have an export ratio of 38.85 per cent and 18.58 per cent, respectively. These outcomes are indicative of the advantages of geographical location and proximity to each other, which facilitates rapid trading ventures (COMESA 2014).

This study also deemed it necessary to determine which commodities were largely exported by Kenya to the COMESA member states. Table 9.13 shows five of the leading commodities exported from Kenya to the COMESA member states.

Table 9.13: Major exports from Kenya to COMESA FTA members (US$ Million)

HS CODE	Product description	Exports after COMESA FTA
27	Mineral fuels, oils and waxes	39.31
15	Animal or vegetable fats and oils	26.25
87	Vehicles, parts and accessories	11.18
72	Iron and steel	8.43

Source: Author's own calculations based on Smart Simulations

As illustrated in Table 9.13, petroleum oils and bituminous minerals constitute the bulk of Kenya's exports with an export value of US$39.10 million. This is because Kenya imports crude oil, refines it and later exports petroleum products, with a higher value and demand in Eastern Africa. This is followed by animal and vegetable fats, oils and their cleavage products; prepared edible fats; animal or vegetable waxes with an export value of US$26.25 million, commodities like motor cars and other motor vehicles, principally designed for

the transport of people, worth US$11.18 million, and iron and steel US$8.43 million.

9.4.2.5   The impact of COMESA FTA on Kenya's imports

This study notes that imports are purchases of any goods and services by a domestic company from a foreign economy (Groppo & Piermartini 2014). It is noteworthy that with the enactment of the free-trade agreements amongst COMESA members, all forms of tariff and non-tariff barriers, including protectionism or import restrictive practices, are eliminated. As much as trade liberalisation plays a significant role in the social, political and economic development of a nation, it is also very significant to note that without limits to these benefits a country can become a dumping site for cheap and sub-standard imports (Feldman, 2008).

This can also lead to the demise of infant industries that cannot compete with rivals within the trading bloc. This raises the question whether the trade-liberalisation venture of the COMESA free-trade agreement succeeded in increasing or reducing imports, and which type of import came into Kenya? Are they raw materials used in production or capital goods? Are they finished goods and which of these are of lesser economic benefit to the country?

In light of the above, this study used the WITS/SMART model approach to assess the impact of the COMESA free-trade agreement in respect of the change in Kenya's imports as shown in Table 9.14, after implementing the COMESA FTA protocol.

Table 9.14: Kenya's import change from COMESA FTA (US$ Millions)

HS Code	Imports before FTA	Imports after FTA	Import Change
Total	8,826.229	8,841.737	15.508

Source: Author's own calculations based on Smart Simulations

According to the WITS/SMART models and simulation outcomes, the Kenyan imports are expected to grow as a result of implementing the COMESA FTA protocol. Table 9.14 reveals that Kenya's imports are expected to rise marginally from US$8,826.229 billion to US$8,841.737 billion after the COMESA FTA. The import change expected was US$15.508 million after the implementation of the COMESA FTA. This can be considered to be a result of the trade-creation effects. An analysis of the market view from the WITS/SMART simulations approach lists the products with the largest change in imports into Kenya, in Table 9.15.

Table 9.15: Kenya's major imports from COMESA FTA (US$ Millions)

Hs Code	Product Description	Imports Before FTA
48	Paper and paperboard; articles of paper	90.04
85	Electrical machinery and equipment	76.37
24	Tobacco and manufactured substitutes	47.24
87	Vehicles, parts and accessories	12.19

Source: Author's own calculations based on Smart Simulations

The outcomes from the WITS/SMART model in table 9.15 indicate that the commodity with the highest change in import value is paper and paperboard; articles of paper pulp, of paper, or of paperboard, valued at US$90.04 million. The second commodity is electrical machinery, equipment, parts; sound recorders, reproducers, television screens, and parts and accessories of such articles which show an import change of US$76.37 million. This was followed by tobacco and manufactured tobacco substitutes valued at US$47.24 million. The last import product categories comprise vehicles, other than railway or tramway rolling stock, and parts and accessories, with a change in import value of US$12.19 million. It is important to note that Uganda is the largest importer of Kenyan products.

9.4.2.6 Sensitivity analysis and robustness tests

Owing to the necessity to guarantee the levels of correctness and confidence of the actual values for the Armington and demand elasticities, it became essential that a rigorous sensitivity analysis be carried out to validate the robustness of the results presented in this study. The base-case simulation was done firstly through the elasticities from Armington, Stern and Tokarick, as mentioned in Chapter Five. Due to the possible sensitivity of the models' outcomes to the elasticity values, this study had to re-run the simulations with varying assumptions.

This meant that this study had to test for the upper bound limits, and then the lower bound limits, as indicated in Table 5.1. The results were also established using an elasticity of 6, which was needed for the worst-case scenario and specifically for determining the effect of the COMESA FTA on Kenya. This is attributed to its ability to provide for the biggest possible impact of the COMESA free-trade agreement on Kenya.

Table 1(a) in the appendix presents the robustness tests and the sensitivity analysis of the trade-creation and appendix 1(b) presents the trade-diversion effects in Kenya after the adoption of the COMESA free-trade agreement. The base-case scenario with an elasticity of 1.5 had a trade-creation effect of US$15.51 million and a trade-diversion effect of US$0.3 million. The researcher then manipulated it from an elasticity of 1.5 to 0.5, then to 2, and finally to 6, to cover all the scenarios from the base-case to the lower case, and then the upper case, and finally the worst-case scenario.

The trade creation results were similar at US$1.13 million for all the scenarios; but the trade diversion was US$0.01 million at the lower case, US$0.03 million at the base-case, US$0.04 million at the upper, and US$ 0.12 million at the worst-case scenario. These findings show that Kenya's total change in imports remained the same in value, despite its structural variations, as the economic agents came into force across the various imports.

The sensitivity test and the robustness analysis for the revenue effects in Kenya after the implementation of the COMESA FTA are shown in Table 1(c) of the appendix. This study first tested for the base-case scenario, which had an elasticity of 1.5. The outcome shows a loss of US$7.88 million; the study then further reduced the elasticity to 0.5, as it sought to examine the lower-case scenario and the outcome thereof is US$7.19 million. After a change to elasticities of 2 and then 6, the outcomes are US$8.22 million and US$10.90 million, respectively. The resultant deviation from the middle-ground findings is generally insignificant. In respect of the middle-ground estimates, it was agreed that they could be within certain limits and sizes.

Appendix 1(d) shows the robustness test and sensitivity analysis of the welfare effects on Kenya after the implementation of the COMESA FTA. This study first tested for the base-case scenario, which had an elasticity of 1.5. The outcome shows US$1.60 million; the study then further reduced the elasticity to 0.5, as it sought to examine the lower-case scenario and the outcome thereof is US$1.08 million. After a change to elasticities of 2 and then 6, the outcomes are US$1.05 million and US$0.99 million, respectively. The deviance of welfare gains from the base results are in absolute terms and insignificant, as shown in the table in appendix 1(d). On reference to the middle-ground estimates, it was agreed that they could be within the permissible limits and sizes.

Appendix 1(e) confirms the sensitivity analysis and the robustness assessments on exports in Kenya - after the operationalisation of the COMESA FTA. On reducing the elasticity of trade from 1.5 to 0.5, the growth in export quantities decreased from 0.28 per cent to 0.25 per cent. The researcher further adjusted the elasticity of trade to 2 and 6, respectively which the revealed an export growth of 0.28 per cent and 0.30 per cent, respectively. The deviances from the base-case of expected differences in exports as a percentage of the lower-bound, upper-bound and worst-case scenarios were 0.03; zero; and zero percentage points, respectively. The resultant deviations

from the middle-ground results are generally insignificant. Based on the middle-ground estimates, these could be within sight of the probable sizes.

Appendix 1(e) presents the results of the sensitivity analysis and the robustness checks on imports in Kenya after the unilateral implementation of the COMESA FTA. On reducing the elasticity value to 0.5 the findings showed no change in the imports caused by trade creation after the base-case in Kenya. Increasing the trade elasticities to 2 and 6, yielded the same results with no differences to the trade creation effect as the import-growth change remained at 0.07 per cent. These findings demonstrate that Kenya's total change in imports would be similar in value, although the structures thereof vary, as economic agents interchange across the different imports.

9.5   Summary

Chapter Nine of this study explained the findings and results from the WITS/SMART model approach. In this section, this study presented in detail the WITS/SMART model analysis of the revenue and welfare effects on Kenya after implementing the COMESA Free-Trade Agreement and the COMESA CU. This section firstly analysed the impact of the COMESA CU on Kenya. It examined the effects of COMESA CU on the trade-creation effects, the trade-diversion effects, the revenue, consumer-welfare, imports and exports, which constitute some of the major aims of the study. Secondly it evaluated the impact of the COMESA Free-Trade Agreement on the trade-creation effects, the trade-diversion effects, the revenue, consumer-welfare, imports and exports, which are also some of the major objectives of the study.

On assessment of the COMESA CU, it was revealed that Kenya is expected to have a trade-creation effect of US$310.50 million. This is a worthy trend that could lead to the expansion of the net welfare gains for Kenyan consumers, if it adopted the COMESA CU protocol. The analysis also revealed that the increment in imports from the COMESA member states would be balanced by the reduction of imports from the rest of the world. This would then lead to the

trade diversion being equal or less than zero. It would therefore imply that trade creation would be the only influence on the total social welfare.

This study also estimated a loss in the total fiscal revenue amounting to US$327.97 million and a consumer welfare gain of US$56.27 million, shared across all categories of goods after implementing the COMESA CU rules and conditions. Although the consumer welfare gains seem good they are quite insignificant relative to Kenya's GDP of US$60.94 billion for the 2014/2015 financial year. Kenya was also expected to have a marginal drop of US$22.04 million in exports and an increment in import values of US$310.50 million after the implementation of the COMESA CU agreement.

This study found that the COMESA FTA had a positive trade creation effect on Kenya. It is apparent that the trade-creation effects would be able to balance the trade-diversion effect which, could lead to increased net welfare gains for the Kenyan consumers. It was noted that if Kenya abolished both tariff and non-tariff barriers against the imports from the COMESA region and levies on the approved Common-external tariff on non-COMESA member States, it would lead to a trade expansion of US$15.51 million. The WITS/SMART simulations results revealed that Kenya could be expected to generate fiscal revenue losses amounting to US$7.88 million if they implemented the COMESA Free-Trade Agreement. The free-trade agreement under COMESA was also expected to enable the Kenyan consumer to gain a net welfare effect of US$1.06 million. This trade deal was also expected to lead to an import increment change of US$15.50 million and export increment of US$9.93 million.

On general examination of Kenya's exports from the COMESA FTA and the COMESA CU protocol, it was noted that the bulk of their exports comprised of primary processed products. These are petroleum oils and oils obtained from bituminous minerals and crude oils. Most of Kenya's exports are destined for Egypt and Uganda.

To ensure the accuracy and validity of this study's results, a robustness test and a sensitivity analysis had to be performed. On assessment of the findings from the robustness tests and the sensitivity analysis, the results indicate that deviations from the middle-ground outcomes are largely insignificant. With reference to the middle-ground approximations, these findings are within sight of the possible limits.

The following chapter presents the summary findings, conclusions and recommendations.

CHAPTER TEN
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

10.1   Introduction

This chapter presents the important findings derived from the results of this study in relation to the research questions and objectives. Following this is the conclusion of the study and some recommendations to the problems noted and suggestions pertaining to findings based on the objectives and research questions. Finally the study will allude to related areas on the topic of this study that, although not discussed in detail, have contributed much needed knowledge.

10.2   Summary of the study

During the past two decades, trade liberalisation has generated a lot of interest in Kenya, Africa and around the world. As the wave of regionalism kept advancing, many African States quoted the Bretton Woods Conference, which was officially known as the United Nations Monetary and Financial Conference, especially in their emphasis on open and free-trade. It was noted that the influence of trade liberalisation on a nation was not straight-forward or obvious. It transpired that developed industrialised nations with their robust economic structures have greatly benefited from the trade-liberalisation ventures.

Developing nations, such as Kenya, are somewhat confused in their efforts to promote trade liberalisation, whether it is paying off, or it would pay off in the future – bearing in mind the fragile nature of their economies.

Studies by Githanga (2015) assessed a case where in Africa there were very few or no convincing evidence on the influence of trade liberalisation on aspects, such as social welfare, globalisation, human development, livelihoods or even economic development. This also ended by agreeing with the World Bank reports on trade liberalisation that few countries, especially in Africa, are able to quantify whether or not they are benefiting from trade liberation (World Bank 2014). In several instances, trade liberalisation was preceded by misery,

environmental damages of wider income inequalities and the destruction of poor populaces' livelihoods, and to a worser extent the marginalisation of poor states and their populations (Rosnes & Shkaratan 2011).

Kenya, as a nation, is particularly confused as to whether or not the sacrifices made for the success of the various regional trade arrangements are paying off; or is it an exercise in futility that would lead to more losses and reduced welfare gains for the Kenyan people. Among some of the problems that have left Kenya wondering there are the slowing down in the economic growth rate, increased losses in tariff revenues after implementing agreements by the various trading blocs, increased unemployment problems and the widening of trade deficits.

At the time of Kenya's independence in 1963, the Kenyan Government acknowledged ignorance, illiteracy, disease and poverty as the core problems that needed urgent attention in the post-independence era. This was further publicised in virtually all the sessional development plans and other government economic policy documents issued in the post-independence period. It was further emphasised in the sessional paper of 1982, which factored in structural adjustment programs as a key strategy for the government to recover the economic productivity of the state, in order to increase welfare, resulting in the economic distortion that took place in the 1970s and 1980s.

Trade liberalisation episodes usually began with the structural adjustment programs that were addressed in the Sessional Paper Number 4. This included the Economic Prospects and Policies under the provision of the two Breton Woods institutions, i.e. the International Monetary Fund (IMF) and the World Bank. In addition to adopting the trade liberalisation initiatives of the Breton Woods institutions, Kenya joined the multilateral trading system under the WTO framework in 1995. Kenya's commitment to the WTO principles and regional

trade agreements (RTA), such as the EAC, COMESA BFTAs and the EPAs now form an integral part of its economic policies.

Trade liberalisation was taken to be a panacea that would propel developing countries on the correct path of development that would lead to poverty eradication trough trade expansion. Omolo (2012) stated that there are many gains associated with trade liberalisation, but there is no guarantee that there would be equal distribution amongst the participating member states. She argued that there is no guarantee that the growth would be positive, or if it's positive one cannot be sure whether the output growth rate and living standards would be consistent.

Trade liberalisation began in the early 1980s and the structural adjustment programmes continued under reciprocal liberalisation within the WTO framework (GOK 2013). It became evident that welfare measured through incidences of reduced poverty, increased trade ventures, increased revenues and exports was becoming scarce and was not improving, which led to the worsening of the levels of income inequality (GOK 2013). The over-dependence on trade liberalisation by the government of Kenya to ensure its policy left space for the daily running of the economy further aggravated the situation. This led to government and the Kenyan people giving little attention to the effects of trade liberalisation on social welfare that brought about contradictory schools of thought by various national stakeholders. Also joined in the discussion were the non-state actors, who comprised a larger part of civil society. They have always argued that trade liberalisation has had less or no positive impact on trade, exports, revenue and the welfare of the people of Kenya.

The government of Kenya was forced to subsidise the weaker sectors of the economy, including farmers and affected industries, which could not compete with other developing nations with cheaper exports on the world market. This left the government officials in Kenya with the dilemma of whether the revenue

losses, high business competition and technology transfers were the reasons for the non-performing Kenyan economy. The government economists were always on the defensive, arguing that hiccups were the short-term effects of trade liberalisation, which would eventually drastically improve, and that long-run effects are expected to be positive once the adjustments have taken place.

The earlier mentioned political, social and economic hiccups Kenya experienced, made it vulnerable to the influence of external forces, which include foreign competition. This is explained in Chapter Three of this study on Kenya's trade performances that have caused many incidents in which Kenya has registered a negative trade balance despite several efforts to improve its terms-of-trade and the balance of payment conditions.

It is clear that Kenya has learnt from its previous social, political and economic experiences; since it has resorted to trade liberalisation as an avenue to fix its problems of insecurity, balance-of-payment deficits, lack of investor confidence and finding new markets for its domestic products. Among the options identified, Kenya has opted to derive basic benefits from international trade through regional trade arrangements, thereby ensuring that it can consume what it produces locally. It acknowledges the differences in the production efficiency of certain goods; hence, making every effort to benefit from the comparative advantages of trade.

This was achieved by concentrating on the production of those goods, which they can produce more efficiently than other goods, and by trading against goods produced more efficiently elsewhere (Perera 2015).

An ambitious trade liberalisation program was launched as a means for Kenya to benefit from the various regional trade agreements, which include the COMESA, EPAs and WTO including the BFTA which Kenya is committed to. This formed the background through which this study assessed and examined

the impact of the various trade agreements that led to trade liberalisation in Kenya's trade.

This study formulated the following research questions in the introductory chapter. The aim of these questions were to determine whether trade liberalisation has led to increased trade creation, trade diversion, revenue effects, consumer-welfare effects or increased quantities of exports and imports. This also served to highlight which of Kenya's trading partners are having the largest impact on Kenya's economy.

In view of the aims and objectives, this study selected to apply the partial-equilibrium modelling that uses the WITS/SMART model approach. It was noted that the WITS/SMART model has all the caveats accompanying a static partial-equilibrium analysis. It is important to note that the WITS/SMART model comprises various databases brought together. They include commodity trade flows, bilateral trade and various forms of trade protection (Lang 2006). It is also revealed that the WITS/SMART model approach brings together various analytical tools that support simulation analysis. The WITS/SMART simulation model is known as one of the analytical tools that is mostly used in World-integrated trade solutions for simulation commitments and purposes. This model has been well-developed and it has in-built analytical components that provide backing trade-policy analyses. These forms of analyses include items, such as the effects on preferential trade liberalisation agreements, multilateral tariff cuts and the ad hoc tariff changes.

The use of the partial-tariff equilibrium models make it possible to conduct several analyses and evaluation tasks, which include the assessments of various effects of trade regime policies on government revenues, trade creation, trade diversion, imports, exports and consumer-welfare effects, which are part of this study's aims and objectives. This makes it clear that the WITS/SMART model would be instrumental in the assessment of the effects on the trade-policy reforms, as mentioned earlier.

10.3 The summary of findings of the study

The evidence derived from the WITS/SMART estimations of the outcome of two empirical frameworks used in this study is relevant. This study firstly used the WITS/SMART model to assess the impact of trade liberalisation through various customs union agreements; then later, it used the various free-trade agreements. The study compared the findings from all the free-trade agreements and the findings from the customs union agreements.

10.3.1 The results of the WITS/SMART model

This study provided an illustration and quantitative analysis of the possible effects of the EPAs, BFTAs, WTO FTA, COMESA FTA, and COMESA CET on Kenya. Hence, the study used the WITS/SMART model and the Partial-tariff equilibrium to assess the influence of the trade liberalisation on trade variables, such as trade creation, trade diversion, exports, imports, and revenue and consumer welfare effects on Kenya.

It is important to note that in the implementation of the customs union protocol, a nation would be forced to restructure and reorganise its tariff arrangement to be in line with that of the regional trading bloc; this is in addition to allowing for factor mobility and the free movement of goods and services across the borders within the trading bloc. Hence, for COMESA to be effective in the customs union protocol, Kenya has to align its national tariff with those of the COMESA partner states in implementing the agreed common external tariff.

The implementation of the free-trade agreement requires that nations either abolish or significantly reduce their tariff between member states, as it works on the modalities of the zero-rated tax regimes in the regional trade arrangement (Menyah, Nazlioglu & Wolde-Rufael 2014). This therefore, implies that for Kenya to implement the various free-trade agreements including the EPAs, BFTAs, WTO FTA, COMESA FTA and COMESA CET, it has to apply a zero-rating duty to all the member states within the various trading blocs.

For Kenya to fully comply with the requirements of the various regional trade agreements, it has to carry out a robust transformation in its existing tariff arrangement. This is because only 19 per cent of the total tariff lines are in compliance with the common external tariff. This is evident, especially where Kenya is earning much of its revenue from the customs revenue from the various land-locked countries with the East Africa and COMESA region, among its other neighbours. This, therefore, means that customs revenue is a significant source of government revenue for Kenya.

The examination of the trade liberalisation, using the WITS/SMART model simulations approach provides much-needed insight into the aspects policy-makers need to take into account when entering into trade negotiations for Kenya. The findings and recommendations from COMESA CET, COMESA FTA, EPAs, BFTAs and WTO FTA are therefore beneficial for the Kenyan government in addressing the country's present challenges.

COMESA CET

Among the challenges noted in this study is that with the implementation of the COMESA CET protocol. Kenya would be expecting to obtain trade creation of US$310.50 million, which is in close relation to the consumer welfare effect valued at US$56.27 million as calculated by the WITS/SMART model. This therefore implies that the economy would be expanding as a result of adopting the COMESA CET.

This study found that Kenya would be gaining an overall welfare effect of US$56.27 million as the COMESA CET pact come into effect. It is quite remarkable to register such an amount of welfare in international trading. Yet, this figure is quite insignificant relative to Kenya's Gross Domestic Product of US$60.94 billion dollars in 2014.

The findings in respect of capital goods, showed a welfare gain of US$7.93 million and raw material recorded welfare gains of US$13.39 million. The

finished goods anticipated a consumer welfare effect of US$21.69 and the intermediate goods provided a welfare effect of US$13.25 million.

The WITS/SMART simulations model was also used to determine the estimated total fiscal gain or the total loss. The findings estimated that Kenya would suffer a total fiscal revenue loss of US$327.97 million, as a result of being part of the COMESA CET protocol. This therefore, necessitates that Kenya should devise modalities – either from the COMESA CET Pact or within Kenya, to develop the means of recovering the lost revenue to enable it to continue meeting its regular governmental objectives. This would be necessary for the government in order to justify to its citizenry that there are more benefits to the trade liberation venture than there are losses.

This study further found that the export quantities would be dropping from US$416.19 million before the COMESA CET protocol to US$394.14 million after the COMESA CET protocol – yielding an end-result of US$22.04 million negative change in exports. On the other hand, the Kenyan imports are expected to grow from US$11.09137 billion before the CET to US$11.40187 billion after the COMESA CET, resulting in an import change of US$310.50 million. These trends are worrying; hence, the Kenyan government should look for a way of addressing the balance-of-payments conditions. And the government should work on improving the quality and quantity of exports to exceed that from imports, especially from the COMESA industries.

These results imply that Kenyan industries are losing their market to superior and more efficient producers outside, but within the COMESA region. This also means that the Kenyan industries should develop their production capacity to be better than that of its rival competitors within the COMESA region.

- **COMESA FTA**

The assessment of the free-trade arrangement under COMESA reveals that Kenya would be expecting to register a trade expansion through total trade

creation, amounting to US$15.51 million if it fully complies with the pact. The country in COMESA FTA having the largest gains would be the Democratic Republic of Congo followed by the Seychelles thereafter, Ethiopia and Eritrea, among other COMESA member states mentioned in Table 9.8. The product that generated the largest trade creation is tobacco and manufactured tobacco substitutes, with a value of US$0.9 million. This is followed by pharmaceutical products and meat, among other products and commodities mentioned in Table 9.9.

This study found that the commodities with the highest trade creation are primary products (Tobacco, partly or wholly stemmed/stripped) with zero-rated tariffs, which are gaining after the COMESA free-trade agreement. Tobacco and its products are produced in Kenya through the British American Tobacco Company and the Mastermind Tobacco Company in Kenya, which contribute substantially to Kenya's GDP growth through providing work opportunities, taxes and infrastructure. The exported tobacco has proven to be much cheaper than that consumed in Kenya; as it attracts a 48 per cent tax in the retail pricing. The high taxation is primarily to discourage the over 2.5 million tobacco users and those suffering from cigarette-related illnesses, as reported by the Global Adult Tobacco survey (GATT 2014). This confirms its high trade-creation effect in Kenya and in the regional countries.

The WITS/SMART model simulation assessment reveals that Kenya was expecting a fiscal revenue loss of US$7.88 million. This study also noted that the loss came from products, like electrical machinery and equipment and parts; sound recorders, reproducers, television screens and sound recorders and reproducers as well as parts and accessories of such articles, which cumulatively attracted a loss of US$1.91 million. The paper and paperboard; articles of paper pulp, paper or paperboard, attracted a loss of US$2.97 million.

The findings from this study reveal that Kenya is expected to receive a consumer welfare effect of US$1.06 million. The WITS/SMART simulation

model identified that among the commodities with the highest welfare effects, such as paper and paperboard; articles of paper pulp, of paper or of paperboard valued at US$0.59 million. The electrical machinery, equipment and parts; sound recorders, reproducers, television screens, sound recorders and reproducers, parts and accessories of such articles generated a welfare effect of US$0.19 million.

The third category that created a high consumer-welfare effect was Tobacco and manufactured tobacco substitutes valued at US$0.03 million, among other products.

The outcomes reveal that exports are expected to grow by US$9.93 million after the COMESA FTA. The import statistics reveal that Kenya's imports are expected to rise marginally by US$15.50 million after the implementation of the COMESA FTA. Anderson and Philemon (2014) recommend that developing countries like Kenya, should work on increasing the quality and quantity of their exports to improve the balance-of-payment conditions.

- **EPAs**

The findings from the WITS/SMART model on EPAs reveal that Kenya can be expected to gain an increased trade-creation effect of US$129.45 million, which exceeds the trade-diversion effect of US$89.29 million giving Kenya a total trade effect of US$218.73 million. This is an indicator of trade expansion, which is as a result of the free-trade agreement with the European Union. The goods that yielded the largest trade-creation effects include commodities, such as tools, implements, cutlery, spoons and forks, of base metal, representing 25.52 per cent of the total trade creation, followed by mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes, which comprise 17.63 per cent of the total trade creation.

The findings of the study also reveal that Kenya is expected to suffer a US$142.355 million loss in fiscal revenue as a result of implementing the

EPAFTA. The items highly affected by losses are commodities, such as worn clothing and other worn articles worth US$12.69 million, telephone sets, telephones for cellular networks and wireless networks of US$4.04 million. Other commodities include wheat US$3.57 million, and lastly discs, tapes, smart cards and other media for the recording of sound worth US$3.46 million.

By fully implementing the EPA pact with the EU, Kenya is expected to have an increase in consumer welfare of US$17.56 million. The commodities that could lead to an increment in welfare are worn clothing and other worn articles. The welfare effect of this group of commodities is US$ 2.11 million, followed by cane or beet sugar and chemically pure sucrose, in solid form, valued at US$0.76 million. The tanks, casks, drums, cans, boxes and similar containers, especially of a capacity of 50 litres or more, provide the third best welfare effect followed by the petroleum oils and oils obtained from bituminous minerals, other than crude, having a price value of US$0.41 million welfare effect. The last item of the five commodities with the highest welfare creation is paper and paperboard, coated on one or both sides with kaolin (China clay), valued at US$0.38 million. The other commodities have an expected cumulative welfare effect of US$12.73 million.

The implementation of the free-trade agreement includes the removal of all the tariffs against imports from the EU, and the imposition of the agreed EU CET on non-EU countries. This would lead to gains from trade expansion by an amount of US$218.731 million in exports and import expansion of US$129.45 million.

- **The WTO FTA**

The findings from the WITS/SMART simulations estimate that Kenya would most probably experience a trade-creation effect of US$995.16 million without any trade-diversion effects. The findings also reveal that the presence of trade creation is an indication of trade expansion should Kenya fully implement the WTO free-trade agreement.

Kenya is also expected to experience losses in fiscal revenues amounting to US$817.15 million after implementing the WTO FTA. The most-affected by losses are cereals worth US$111.9 million. Losses of US$89.10 million is ascribed to the second product category products such as mineral fuels, mineral oils and products of their distillation; bituminous substances; and mineral waxes show a loss of 10.9 per cent of the total losses. These were followed by sugars and sugar confectionery having 7.51 per cent of the total losses, among the other goods and products mentioned in Table 8.6.

The WITS/SMART simulation model outcomes reveal that Kenya would gain US$103.98 million in consumer welfare effects after the enactment of the endorsements of the WTO FTA. Cereal products have highest consumer welfare effects valued at US$21.38 million. These products are followed by sugars and sugar confectionery worth US$13.11 million. The third group of products with the highest welfare effects are mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes totalling US$6.95 million, among other products stated in Table 8.8.

It is significant to note that the items identified by this study with high government revenue losses, are at the same time those commodities that reveal the highest welfare effects. This implies that such products that cause revenue losses should be viewed in the basket of goods amounting to the consumer-welfare gains. These products also happen to be of low-cost to households and consequently increase the welfare effects.

The findings of this study reveal that with the abolition of tariff barriers and non-tariff barriers against imports from the WTO states, while imposing the established WTO CET on non-WTO countries, would result in a trade expansion of exports and imports valued at US$995.16 million and US$995.16 million, respectively. This can be explained by the growth in imports from the WTO countries, balanced by a decrease in imports from the rest of the world;

this would result in trade diversion being equal to zero. Thus, trade creation is the only influence on total social welfare.

- **BFTAs**

Kenya is expected to gain total trade effects of US$467.92 million. The WITS/SMART model application shows trade creation amounts to 71.18 per cent of the total trade effects, which outweighs the trade-diversion effects of 28.82 per cent of the total trade effects. This study also noted that among the commodities that generate the largest consumer-welfare gains, are cereal products worth US$11.08 million, contributing 26.45 per cent to the total welfare. Commodities such as mineral fuels, mineral oils and products of their distillation; bituminous substances; and mineral waxes, contributes 14.06 per cent of the total welfare gains. Sugars and sugar confectionery, contribute 8.53 per cent to the total welfare gains among the other commodities mentioned in Table 7.5.

The findings from the WITS/SMART model also reveal that Kenyan imports and exports are expected to rise by US$355.867 million and US$4627.10 million, respectively. Kenya's imports after the bilateral free-trade agreements comprise mineral fuels, mineral oils and products of their distillation; bituminous substances; and mineral waxes, which realised change value of US$158.30 million, followed by cereals with an import growth value of US$39.85 million among other commodities mentioned in Table 7.9.

These commodities show that the imported goods, such as cotton and sugar, are as a result of the free-trade agreement, where a cheaper producer within the bilateral free-trade zone gains trade against the inefficient competitor in Kenya. This poses a challenge to Kenyan policy-makers; the need to improve the quality of goods produced and the cost of production to make Kenyan products more competitive internationally.

10.4 Conclusion

This study comprised an examination of the five trade agreements Kenya entered into with the aim of gaining from trade liberalisation. These trade agreements are the COMESA CU protocol, the COMESA FTA, the EPAs, the WTO FTA and the various BFTAs. This study used the WITS/SMART model to assess the influence of trade liberalisation on the Kenyan economy after implementing the five trade agreements.

The comparative assessment of the trade-creation effects reveals that the WTO FTA predicted the highest trade-creation effects of US\$995.16 million. This was followed by the various bilateral free-trade agreements which had a trade-creation effect of US\$333.04 million, then COMESA CU with a trade-creation effect of US\$310.50 million, the EPAs with trade-creation estimated at US\$129.45 million. COMESA FTA was expecting trade-creation effects valued at US\$15.51 million.

These trade-creation effects are expected to cause unemployment through de-industrialisation. This study also noted that WTO FTA and COMESA CU showed no evidence of trade diversion. However, BFTA, EPAs and COMESA FTA showed evidence of trade diversion of US\$134.88 million, US\$89.28 million and US\$2.61 million respectively.

This study also examined the possible revenue-effect findings from the free-trade agreements and customs union. It noted that most losses emanated from the WTO FTA, totalling US\$817.15 million. This is followed by the COMESA CU protocol, which registered a loss amounting to US\$327 million. The third free-trade agreement with the highest losses comprises the various BFTAs, worth US\$304 million, followed by the EPAs losses amounting to US\$142 million. The free-trade agreement with the least losses was the COMESA FTA, which showed a loss valued at US\$7.88 million.

The consumer-welfare effect analysis sought to assess whether or not consumers benefited from the trade agreements. This study found that the WTO FTA expected the highest consumer-welfare effect of US$103.98 million, followed by the various COMESA CU agreements with an expected consumer-welfare effect of US$56.27 million.

The BFTA consumer-welfare effect was US$41.82 million. This was followed by the EPAs with a consumer-welfare value of US$17.56 million. The trade protocol with the least-expected consumer-welfare effect was the COMESA FTA valued at US$1.60 million. Although welfare gains resulting from the anticipated trade agreements were an indication of potential benefits to Kenyans, they nevertheless were insignificant.

This study also analysed the export performances of five different trade agreements and their impact on Kenya. It found that the BFTA expected an export value US$4.63 billion, followed by the EPAs expected export value of US$2.18 billion. The third largest export value was that of WTO FTA with an export value of US$12.12 billion, the fourth being COMESA FTA having an export value of US$434.28 million and finally COMESA CU with an expected export value of US$394.14 million.

The composition of the Kenyan exports can be expected to remain to be minerals, tobacco and agricultural products dominating the export basket. Additionally, the geographical import bases and the export destinations were expected to be the WTO, which included traditional trading-partner countries, such as Uganda, DRC, Egypt, Rwanda, Sudan and Zambia. This therefore implies that Kenya was not able to make maximum use of trade liberalisation to expand its export destinations; as the COMESA CU was expected to register reduced exports.

Kenya expected an increase in imports mainly from the WTO, amounting to 8.95 per cent, followed by the BFTA with an expected growth rate of 3.2 per

cent. The third free-trade agreement, COMESA CET envisaged an import growth rate of 2.8 per cent, the EPA 1.16 per cent, and finally, 0.07 per cent import growth from the COMESA FTA.

Of significance is that, as the revenue losses increased, the consumer-welfare rose simultaneously. However the revenue loss was greater than increase in consumer-welfare, indicating a loss was incurred. This also implies that most free-trade agreements spent a significant sum to ensure consumer-welfare. The increase in exports and the consumer-welfare effects come with the price of revenue loss effects and an increase in imports. Hence, for Kenya to gain from trade liberalisation, it has to increase its investment in export quality and price so as to increase the consumer-welfare effects, the revenue effect and increase export quantities.

10.5   Policy recommendations of this study

Upon careful consideration of the findings of this study, the researcher suggests the following recommendations in accordance with this study's research objectives. The government of Kenya and the relevant stake-holders should assist in enhancing growth in revenue generation, trade-creation effects, the export quantities, and improved consumer-welfare as well as enhanced competitiveness of the Kenyan products. This can be done through an expansion of export-promotion policies and strategies and value adding production techniques. Other considerations include the development of methods to control revenue losses.

10.5.1   Expansion of export-promotion policies and strategies

Kenya's aims to pursue trade liberalisation were intended to enhance export growth. The findings from the WITS/SMART model reveal that Kenya endeavoured to fully utilise the expanded markets, as is evident in the marginal increase in exports, and even at a point, a drop in export quantities. This study recommends that it is prudent for Kenya to investigate various measures that could improve its export quantities.

Based on this the researcher suggests that the Kenyan Government should cooperate with the relevant stake-holders on improving the efficiency of the export processing zones and consider the development and strengthening of export support institutions, export subsidies, establishing supply-side facilities, and the financing of trade. All this should be directed towards improving the quality of exports through value addition and strengthening of the knowledge of exporters on the available opportunities in new destinations, and to improve their production capacity to produce lower cost, higher quality products than their rival competitors globally.

10.5.2 Export-Processing Zones (EPZs)

This study found that the export-processing zones (EPZ) in Kenya were established in the early 1990s. Farole (2010) defined the EPZ as an established geographical sector within a state that had been granted privileged treatment. Madani (1999) noted that the EPZ in Kenya was accorded privileged treatment inter alia, which ranged from custom-duties exemption, favourable regulatory policies, subsidies, domestic tax holidays and good public provision. English and de Wulf (2002) stated that argued that this intervention should mainly:

- Encourage foreign direct investments (FDIs) in the specified areas where local producers and investors are being crippled or heavily constrained.

- Increase the quantities of foreign-exchange profitability of non-traditional exports for the country.

- Encourage the production and employment in potentially exporting industries.

In line with the recommendations of Mugano (2013), this study suggests the expansion of the export-processing zones and their efficiencies. As noted by Madani (1999) the EPZ, to a greater extent, was able to achieve its objectives by being low cost, and by increasing Forex, creation of jobs, as well as technological transfer, among other benefits. This study further suggests that

the products with low export quantities should be added to the scheme to improve the export quantities for Kenya.

Ramachandran and Cleetus (1999) noted that China had successfully employed the use of EPZ to improve its export quantities. They further noted the two success factors that were employed, were favourable geographical location and government commitment. These should also be employed in Kenya and other African countries, in order to enhance the efficiency of their EPZs. Ramachandran and Cleetus (1999) emphasised that in China, the EPZs are located at proximity areas, where they can serve as gateways to international trade; while in many African countries, these are located in rural areas with poor infrastructure. Thus, they should be motivated by the need to stimulate rural development.

Engman, Onodera and Pinali (2007) emphasised that India and Russia began their EPZ schemes late. India as late as the 1960, but after an improvement in geographical location and government commitment, both India and Russia were able to experience an increased number of industries and firms that were growing fast. There was a resultant increase in job creation and expanding to the special economic zones. These examples could be emulated by Kenya.

10.5.3 Develop and strengthen export-supporting institutions

This study noted that the Export-Promotion Council of Kenya was established in 1992 and it was mainly mandated to address all the bottlenecks and barriers facing the producers and exporters of goods and services in Kenya. This was intended to improve and increase the export performance of Kenyan goods abroad.

In line with best international practices, this study recommends that the Export-Promotion Council of Kenya should concentrate on improving its efficiency and the expansion of its mandate to ensure that:

- It reduces the problems of imperfect and wrong information in the market – with the aim of increasing and diversifying its exports;
- Expanding the networks of offices overseas, to facilitate information-gathering in foreign markets and improving sales opportunities;
- Disseminate information on the emerging trends in the export markets, and
- Local producers receive assistance regarding rules, regulations and laws in respect of export marketing. This also pertains to packaging and the labelling of export products, the quality and standards required in various countries.

Government should also advise on general export requirements and activities, legal assistance in trade and product movements, export financing, trade missions and trade fairs for the marketing of products. It should also make Kenyan trade consulate and commercial attaché offices available abroad for assistance in cases of emergency.

It is important to note that Kenya, like many other nations, established the office of a commercial attaché in different nations, and especially in its embassies and consulates abroad. This study recommends that more funding, autonomy, human-capital development and assignments in export promotion should be given to these offices. This would facilitate the knowledge administration and information dissemination relating to export-market access and development for different sectors of the Kenyan economy.

Kang (2010) elaborated on an example of a well-development commercial link between South Korea and its trading partners. The Korean-Trade Promotion Corporation, which was initially called the Korean Trade-Investment Promotion Agency (KOTRA) in 1995, was a South Korean government agency that was founded in 1962 and mandated to spearhead export promotion. KOTRA was established 96 offices in more than 78 states abroad to distribute information on culture and marketing conditions in the different foreign countries, as well as overseas business practices in the various countries. It also directly equipped

and supported firms throughout its foreign investment-support centres (Kang 2010).

KOTRA increased its operations through E-commerce, rapid export development, increased government-to-government foreign investment in Korea, along with greater surveys, promotion and business match-making. This testifies that a more efficient export-promotion council of Kenya and Kenyan Commercial attachés abroad could help to improve the trade and exports of Kenyan products abroad.

10.5.4 Export subsidies

The studies by Belloc and Di Maio (2011) identified direct export subsidies and a duty drawback, as two important strategies that a country can use to stimulate export growth.

The direct-export subsidies can be practically applied in Kenya. This is because direct-export subsidies are in the form of tax incentives, grants and financial assistance to producers and exporters directly involved in international trade. Thiga and Muturi (2015) supported the use of tax incentives by governments, or taxes and other non-tariff barriers to exporting companies reaching a specified threshold. This would attract many investors to take advantage of government incentives, bearing in mind the only costs incurred would be the costs of production. Belloc and Di Maio (2011) also supported the use of financial grants to support struggling small and medium-scale enterprises that are desirous to trade internationally, mostly through exports. This would help struggling firms to develop their production and operation capacity to export the required goods and services.

The duty drawbacks were also found to be possible in Kenya to influence export growth. Kenya adopted the duty-drawback schemes as an instrument of trade-policy; thereby, putting a limit on its implementation due to the tight-fiscal space. Nevertheless, this study recommends that for the successful

implementation of this policy, the government has to reduce the red tape and bureaucratic procedures in its execution thereof. The study also recommends that it must be executed in line with the provisions of the World Trade Organisation. As argued by Belloc and Di Maio (2011), the proper implementation of this program would lead to a lower input cost used in production, thereby improving the competitiveness and efficiency of Kenyan exports.

10.5.5 Establishing a supply-side facility

Based on the findings of this research it is recommended that the government of Kenya puts in place a capacity utilisation and a re-tooling loan-scheme facility that would motivate industries to expand their capacity utilisation. This would enhance productive efficiency and competitiveness, as the government puts in place measures to reduce or totally remove taxes on export-related goods. Markheim (2008) noted that this would be very necessary, as it would entice all the potential exporters with viable business ideas, but with limited fund to enter the international trade arena.

10.5.6 Trade finance

Markheim (2008) also posited that weak financial markets pose a major threat to the growth of international trade and industrial development that could have led to improved revenue effects and consumer-welfare. In such circumstances producers are faced with credit constraints, and difficulties to obtain the necessary finances to invest in expanding their productive operations. This may also come about due to limitations in getting sound financial advice on the management of mega export contracts and trade ventures, leading to unforeseen problems for the investor. Studies by (Handley 2014) acknowledged that such limitations may be due either to inefficiency in the financial sectors, or to the lack of creditworthiness of private firms.

These challenges are similar to the Kenyan case, as illustrated by Madani (1999). Hence, this study suggests that the Government of Kenya should make an effort to provide:

- Enough foreign currency through revolving funds (credit) that would serve as a guarantee or credit to exporter banks to pay for the imports of the intermediate inputs.

- To provide matching grant schemes that would target the possible successful exporters that overestimated the risks involved in the exporting project, and thus under-invested in it.

- Through pre-shipment export finance guarantee schemes that would target exporters or potential exporters with insufficient proof of creditworthiness, but with potentially viable business concepts and plans. They could thus provide collateral security as they are in possession of export letters of credit.

It is also important that these transactions be undertaken in line with the establishment of the Articles 1.1(b), 10, 14, and 19 of the World Trade Organisation Agreement on Subsidies and Countervailing Measures (ASCM). These reiterate that the premiums for export-credit guarantees need to be sufficiently adequate to cover non-performing trade credit and all the concomitant operating costs.

10.5.7 Value addition and improvement welfare

Among the challenges Kenya and other African countries are facing, is that their exports essentially consist of primary products. The upgrading of export competiveness would have a significant impact on the value of Kenyan exports abroad and increase consumer-welfare effects. Nevertheless, this study finds it necessary for the government and stake-holders to act on dealing with the effects and management of consumer surplus along with taxes and spending.

10.5.8 Trade-creation effects and management of consumer surplus

The evidence provided by the data collected from this study in Chapters 6, 7, 8 and 9 indicate that there is a presence of trade-creation effects as a result of Kenya taking part in the various regional trade agreements. This is welfare improving, according to Viner (2014), because the consumers are able to get similar goods from foreign firms, but at reduced prices.

Studies by Lang (2006) showed that trade creation cannot be beneficial if the market is dominated by an oligopolistic market structure that forms cartels. This is because in determining prices, they fail to pass on the benefits of trade-creation to Kenyan consumers. Against this background, the researcher found it necessary to recommend the strengthening and reinforcing of the legal systems of the competition, the competition-strategy measures and the consumer-welfare association of Kenya to ensure that trade liberalisation delivers its full potential and much-needed benefits.

The trade economists McCulloch, Winters and Cirera (2002) emphasised the need most governments involved in trade liberalisation to be cognisant of the revenue effects as there exists a tendency for loss making. Banister and Thugge (2001) cautioned most governments against the temptation to cut social expenditure and raise tax levels on consumers, as that would reduce consumer-welfare conditions.

Based on the above, this study recommends that the Kenyan government should first assess the impact generated on poverty or consumer-welfare, as a result of new taxes, before imposing them. This happened when Kenya tried to increase internal taxes – especially direct taxes, which worked against consumer-welfare and is a deterrent to investment. Kenya, therefore, opted to negotiate with COMESA for a tax holiday, since its sugar industry struggled to stabilise. This could also apply to other sensitive products to prevent the, collapse and closure of infant industries because of high levels of competition.

10.5.9 Improving the competitiveness of Kenya's products

The findings revealed in Chapters 6, 7, 8 and 9 that most Kenyan consumers prefer foreign goods that may be cheaper and of higher quality than the locally produced goods, which are expensive and of an inferior quality. This implies that Kenyan products are under siege from cheap and high-quality foreign imports. This necessitates Kenyan producers to invest in improved production techniques to enable them to reduce their costs and increase their quality of products, in order to compete with competitors in the region.

This raises the anomaly that although trade liberalisation was intended to expand the Kenyan markets, the effect of superior producers affects local producers negatively. The superior products from the various free-trade areas taking over markets previously occupied by Kenyan manufacturers might lead to financial constraints on the local producers, and even closure. If Kenya is to benefit from trade liberalisation, Kenyan producers and exporters should improve on their competitiveness, in order for Kenyan products to gain preference in the Kenyan market. Thereafter, regional markets where it should enjoy preferential access and then to other markets outside the free-trade zones. This study recommends that the Kenyan government should invest in appropriate infrastructure, provision of sensitive products and creation of buffer stock accounts and facilities.

- **Investment in infrastructural development**

This study found that for cheaper production of goods and services in any country, infrastructure is much needed to boost investors' confidence. This would range from electricity needed for production industries, transport and communication infrastructure, support infrastructure which includes human resource capital, security and political climate among other factors that are essential for growth of industries.

This study noted that substantial investments should be made to generate alternative sources of energy to lower the cost of electricity supply. More

research should take place to find ways to increase the local production of lower cost electricity and reduce the quantity of imported electricity. Elgström (2010) recognised that during the past decade Kenya invested significantly in roads and energy. Additional investment will reduce the cost of these goods more affordable locally and. The government can also initiate technology transfer to develop production infrastructure to enhance the production of sensitive export goods of high quality at lower cost.

- **Grouping and protection of sensitive products**

Kenya, as do many other developing nations has industries that are struggling on the brink of collapse. This has been attributed to their inability to compete with industries using high-level production technology – especially from the first-world countries. The adoption of trade liberalisation complicates matters more, as they are forced to compete with other nations from the various free-trade zones of which they are members.

This study recommends that the Kenyan government compile a list of goods and products that it deems sensitive, so that these goods can be exempted or protected from trade liberalisation. These are products such as petroleum oils and oils obtained from bituminous minerals, wheat and muslin, maize (corn), cane or beet sugar and chemically pure sucrose, in solid form, cement clinkers and denim-woven fabrics of cotton. This list is compiled from a list of products that have suffered from trade competition, as is evident in the findings.

The categorising of revenue-sensitive products implies that the government of Kenya would have an opportunity to seriously deliberate on these products and take safety measures to ensure that they are profitable. This would save not only the industry from collapse; but it would also increase revenue generation. It would also be useful to enable the industry to generate sustainable employment that would create a wider fiscal space to increase government revenues through corporate taxes, excise duties, value-added tax, and income tax, among other forms of taxes levied directly on the labourer.

This study recommends that caution should be taken by the Kenyan Government to ensure the items grouped under the sensitive products should meet the criteria of being sensitive to revenue or sensitive to employment. It should also not exceed the 20 per cent threshold allowed under all trade agreements provided for in the multilateral rules, for anything less than full reciprocity in liberalisation.

- **Creation of buffer stock accounts and facilities**

In the course of export business many unforeseen circumstances arise. This necessitates the creation of a buffer stock that would be necessary for generating as revenues or reserve inputs as precaution or safeguard against unforeseen shortages, demands or market operation (Anderson, Chijoriga & Philemon 2014).

This study also found that revenue miscalculation by an exporting firm or a production firm within a country should not lead to its closure. This study recommends that firms should be encouraged to open buffer stock accounts, in order to resuscitate businesses displaced by foreign firms through fierce competition within the region.

Lang (2006) argued that the setting up of adaptation facilities on the production of goods like petroleum oils and oils obtained from bituminous minerals, wheat and muslin, maize (corn), cane or beet sugar and chemically pure sucrose, in solid form, cement clinkers and denim-woven fabrics of cotton would protect firms that are under threat from foreign competition. This implies that the adaptation and buffer stock account will focus on these products to ensure they return to profitability.

Here, the study would further encourage industries to save their abnormal profits for building stronger reserves funds. This would be necessary to save the company from revenue loss during economic shocks.

10.5.10 Develop methods of revenue-loss control

This study found that government revenue loss posed a serious threat in most developing countries, including Kenya. This study recommends increasing domestic sources for revenue creation, restructuring and organising of the informal sector, as well as improved efficiency of Kenya-Revenue Authorities and slow tariff phase-down. Other recommendations include using sensitive lists to mitigate revenue loss, implementing presumptive taxes on the informal sector and finally apply for adjustment facility.

- **Increment of domestic sources for revenue generation**

Revenues from international trade sources are continuously reducing and often lead to losses. The government of Kenya would be obliged to scout for alternative sources of revenue to fund its operations. This is simply because of the over-reliance on revenues from exports, which may lead to a revenue crisis with losses, trade deficits and tariff elimination by the FTA agreements.

The government of Kenya should consider increasing its revenue collection from sources, such as excise duty, corporate tax, personal income tax and value-added tax in order to protect itself from the revenue loss resulting from the effects of trade liberalisation (Mugano 2013).

It is further recommended that the Kenyan revenue authorities should improve their efficiency in revenue generation through the annual expansion of people included in the tax contribution. It should further reconfigure the income tax bands to make them more progressive, and thereby ensure more revenue generation. This should also target the informal sector, which is growing fast in Kenya, but is less accounted for in national income contribution in the past years (Waglé 2011). In line with Alfieri *et al.* (2006) recommendations on Mozambique, this study further recommends that the Kenya revenue authorities should consider value-added tax and exercise duties, among other forms of indirect taxes, to be applied to militate against revenue losses through trade liberalisation.

- **The restructuring and organising of the informal sector**

The government of Kenya through its funding of small and medium-scale enterprises was able to greatly expand the number of the informal sector operations. This study recommends that the government should develop a way of organising the informal sector and for it to be factored into the tax program. Through this structuring program, the government would be able obtain revenue for expansion – besides creating the opportunity for them to contribute to economic growth through tax contributions.

The development of the informal sector would assist the nation to increase its innovation and inventive skills and utilise opportunities for recycling waste products. This would contribute to taxes and a reduction in the unemployment rate, social problems and crime.

- **Improved efficiency of Kenya Revenue Authorities**

Basing on the principle of taxation proposed by Adam Smith, this study found that for any citizen to continue paying taxes loyally, the government should ensure the efficiency of its tax system. Kenya should make its tax system more diversified, and reduce the revenues that are lost through purported tax exemptions.

This study recommends that tax exemptions should only be allowed when necessary. The digitalisation of customs revenue should be made effective at the collection points to be transparent in the handling of tariff revenue. Through this, the revenue generation would grow steadily; as corruption would be reduced. Some import substitutes produced locally would reduce imports into the country.

- **Slow tariff phase-down**

In agreement with the findings of Lang (2006), this study recommends that Kenya needs to lower its taxes and tariffs on imports gradually. This can be done by Kenya negotiating with its partner states in various trading blocs. A

member can thus be exempted from a tariff phase-down, a provision given in the trade agreement as derogation. Kenya therefore needs negotiate with its partner states and request that sensitive sectors or industries that suffer financial constraints that may lead to a reduction in Kenya's revenue, be addressed, or even the closure thereof. This study recommends the protection of infant industries producing sensitive goods, while taking care of possible retaliation by other trading partners in the region.

Secondly, Kenya could persuade its partner states in the East African Community, COMESA, EPAs, WTO member states to slow down on reform agendas within the establishment of the various regional blocs, even push it forward to 2018, in order to give Kenya the opportunity to develop its production; as was done with sugar under the COMESA sugar deal. This would help to reduce the financial losses of infant industries caused by fierce competition.

- **Using sensitive lists to mitigate revenue loss**

This study recommends that Kenya should negotiate with its partner states on the basket of goods to be exempted from the tax-free bracket to ensure a reduction in revenue losses. This, once agreed upon, should then be discussed among the member states; and it should not be subjected to tariff reduction for a certain period.

This study noted that commodities mostly affected by trade-creation and trade diversion effects should be categorised as sensitive goods. These include petroleum oils and oils obtained from bituminous minerals, wheat and muslin, maize (corn), cane or beet sugar and chemically pure sucrose in solid form, cement clinkers and denim-woven fabrics of cotton. The addition of these goods and commodities to the list of sensitive products, either in the short or medium term, could contribute to developing methods of mitigating losses as Kenya builds its tax revenue capacity.

- **Implementing presumptive taxes on the informal sector**

It is further recommended that the government of Kenya adopts the policy of presumptive taxes for the informal sector, and allow it to be applied by local authorities, municipal councils and city councils that then collect revenue on behalf of government. Presumptive tax has been successfully used in the transport business in India, Belgium, Israel and China. This would enable Kenya to increase its internal revenue-generation mechanism and reduce its over-reliance on import duty. The adoption of presumptive tax would aid the Kenyan government raise the much needed revenues from the informal sector which most governments in developing countries have not factored into the collection of government revenues (Mugano 2013).

- **Applying for adjustment facilities**

Kenya should explore and make use of the COMESA adjustment facility, which is mainly designed to assist member states that incur adjustment costs due to tariff reductions. The COMESA adjustment facility is a provision made available by the COMESA fund to member states, who suffer losses in government revenue emanating from tariff alignments to the COMESA CET. The COMESA fund, financed by the World Bank, the Africa Development Bank, the EU and other multilateral financial institutions should provide assistance to Kenya in mitigating its revenue loss.

Kenya could benefit from the COMESA fund if it provides bankable infrastructural projects aimed at trade facilitation. It is therefore prudent that the country should start to withdraw money from this fund now.

In other trade arrangements, such as the WTO and the EU FTA, Kenya, together with other member states, should not accept an outcome of trade without foreign aid. Both the EPAs, which Kenya is negotiating under ESA and Doha Round member states, especially from the developing countries, should insist on getting EU trade partners along with secured foreign aid.

10.6 Additional recommendations and issues for Kenya to negotiate

Based on the findings of this study it is recommended that Kenya should negotiate the following issues with COMESA CET protocol, COMESA FTA protocol, the European Union, the World Trade Organisation and the various bilateral trade partners.

- Kenya should negotiate to ensure that EU, WTO, BFTA and COMESA tariff liberalisation allow unrestricted entrance for all Kenyan products into the EU market to ensure that Kenya does not only benefit from agricultural produce, but also some manufactured goods with the ability to compete internationally.

- The Kenyan government should negotiate with the EU, the WTO, the BFTA and COMESA on modalities of a tariff phase-down periods for Kenya. This would ensure adequate time to facilitate her consolidation of gains from regional integration. It would also help Kenya to develop its production capacity for infant industries and protect sensitive sectors.

- Kenyan policy-makers should investigate alternatives for developing the domestic market to increase revenue generation from local taxes that would compensate for the expected losses in revenue arising from lost tariffs through trade liberalisation (reduced taxes) and the increased budget supporting free-trade transactions.

- The Kenyan policy-makers should strive for a detailed product-by-product and sector-by-sector negotiation on the guiding tariff, standards and regulations. This would ensure transparency in trading and protect the consumers from sub-standard products that would reduce consumer-welfare. It would also protect the infant industry from unfair competition with other countries/firms outside the RTA or those illegally smuggling goods into the region to enjoy preferential treatment at the expense of infant industries.

- Kenyan policy-makers and negotiators should petition for an agreeable standard protection measure that would be used to protect the consumers

from poisonous and substandard products, but also to guard against malicious regulations aimed at barring exports from Kenya to the European Union. This would facilitate the growth of exports from Kenya to various market destinations under the free-trade-agreement protocol.

The members in the various free-trade protocols should agree on the cost repayments, as a result of complying with the various technical barriers to trade (TBT) and the sanitary and phyto-sanitary measures. This would ensure reduced losses emanating from extra requirements, not mentioned within the free-trade negotiation, but in member countries.

- The EU, COMESA, WTO and the various bilateral partners should facilitate greater access to accurate trade-related information. This should include changes in the standards of exports and imports, required changes in legal requirements on immigration and shipment of goods, methods to verify the correctness of trade information and various links for assistance to traders in foreign countries, e.g. the European Retailers Code of good agricultural practice (EUREGAP).

- The EU, COMESA, WTO and the various bilateral partners should agree to harmonise standards of individual countries with internationally acceptable standards to promote uniform compliance; and hence, reduce compliance costs of various member partners.

- The government of Kenya and the various free-trade agreement boards should offer support services, especially for trade-capacity building. The various departments dealing with exports should equip and train members on the various regulations and standards (Quality control) required, ensuring they fully comply, and hence, increase exports, revenue and consumer-welfare.

10.7   Limitations of the study

It is imperative to note that the merits of the WITS/SMART model approach are static in nature. This implies that it does not take into account second-round effects. The static nature of this model was in no way a problem for this study; neither did it tamper with the creditability of its findings, because the major focus of this study was on the short-term impact, which is mainly built within the static models.

The model made use of, or only considered static achievements and it did not take into account the dynamic factors linked with trade liberalisation. It is also very important for such features to be taken into consideration, since the debate for economic integration turns around long-term dynamic effects. The effects are: regional integration as a stimulus to foreign direct investment; the impact of regional integration on technology and human-capital improvement – especially with the free flow of goods and services. Another aspect that has been left out is the influence of regional integration on the increased efficiency in domestic industries; regional integration and increased competition, which results in quality products and cheaper products, not leaving out the influence of regional integration on increased economies of scale, due to the enlarged market.

10.8   Suggestions for future research

This study was limited to the static effects of trade, revenue and the consumer-welfare effects. The trade variables were analysed using the WITS-SMART model based on the trade-liberalisation policy through the European Union free-trade agreement, the World Trade Organisation, the free-trade agreement, the bilateral free-trade agreements, the COMESA free-trade agreement and the COMESA Customs Union on Kenya.

There is clearly a need for further studies on matters around the impact of trade liberalisation on Kenya, which include:

- The comparative analysis of the effects of trade liberalisation on Kenya using the Gravity model, the Computable equilibrium model and the Econometric analysis on trade, economic growth and development.

- The assessment of the impact of COMESA/SADC/EAC trade liberalisation on small and medium enterprises through a comparative analysis of Kenya and Uganda.

- The comparative impact of EAC and COMESA on the EAST African Countries (Kenya, Uganda, Tanzania, Burundi and Rwanda).

- Comparative assessment of the General Equilibrium model, the WITS-SMART model and Econometric modelling in evaluating trade liberalisation in the East African Community.

It is imperative to note that General equilibrium models do allow for robust analysis due to their ability to analyse trade policy at both the first- and second-round effects. This also factors in the inter-industry effects and the various macro-economic adjustment frameworks. The author of this thesis is hopeful that in the near future this study would be able to predict the impact of the various non-tariff barriers to economic growth and development in the African nations.

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APPENDICES

Appendix 1 (a): Robustness and sensitivity analysis of FTAs on Trade Creation (US$ Million)

Trade Reform	Base-Case	Lower-Bound	Upper-Bound	Worst-Case
COMESA FTA	15.51	15.51	15.51	15.51
EU FTA	127.79	127.79	127.79	127.79
BFTA	333.04	333.04	333.04	333.04
WTO FTA	995.16	995.16	995.16	995.16

Source: Author's own calculations based on SMART Simulations

Appendix 1 (b): Robustness sensitivity analysis of Trade Reforms on Trade Diversion

Trade Reform	Base-Case	Lower-Bound	Upper-Bound	Worst-Case
COMESA FTA	0.03	0.01	0.04	0.12
EU FTA	89.29	29.39	118.01	365.11
BFTA	134.88	45.39	180.98	523.25
WTO FTA	0	0	0	0

Source: Author's own calculations based on SMART Simulations

Appendix 1 (c): Robustness and sensitivity analysis of FTAS on revenue (US$ Million)

Trade Reform	Base-Case	Lower-Bound	Upper-Bound	Worst-Case
COMESA FTA	-7.88	-7.19	-8.22	-10.90
EU FTA	-142.36	-130.41	-148.38	-197.07
BFTA	-304.65	-279.24	-318.50	-405.27
WTO FTA	-817.15	-817.15	-817.15	-817.15

Source: Author's own calculations based on SMART Simulations

Appendix 1 (d): Robustness and sensitivity analysis of FTAs on Welfare (US$ Million)

Trade Reform	Base-Case	Lower-Bound	Upper-Bound	Worst-Case
COMESA FTA	1.60	1.08	1.05	0.99
EU FTA	17.55	17.92	17.36	15.90
BFTA	41.82	43.06	41.14	37.62
WTO FTA	103.98	103.98	103.98	103.98

Source: Author's Own Calculations Based on SMART Simulations

Appendix 1 (e): Robustness and sensitivity analysis of trade reforms on exports (Percentage)

Trade Reform	Base-Case	Lower-Bound	Upper-Bound	Worst-Case
COMESA FTA	0.28%	0.25%	0.28%	0.30%
EU FTA	11.16%	39.6%	12.6%	25.4%
BFTA	11.25%	9.10%	12.36%	20.59%
WTO FTA	8.91%	8.95%	8.95%	8.95%

Source: Author's own calculations based on SMART Simulations

Appendix 1 (f): Robustness and sensitivity analysis of trade reforms on imports (Percentage)

Trade Reform	Base-Case	Lower-Bound	Upper-Bound	Worst-Case
COMESA FTA	0.07%	0.07%	0.07%	0.07%
EU FTA	1.16 %	1.16%	1.16%	1.16%
BFTA	3.2%	3.2%	3.2%	3.2%
WTO FTA	8.95%	8.95%	8.95%	8.95%

Source: Author's own calculations based on SMART Simulation