THE INFLUENCE OF WORLD TRADE ORGANISATION FREE TRADE AGREEMENT TARIFF RATES ON KENYA

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ABSTRACT

This study offers a quantitative evaluation of the possible effects of trade, revenue, and welfare effects of the World Trade Organisation Free Trade Organisation (WTO FTA) on Kenya. The study applied the Software for Market Analysis and Restrictions on Trade (SMART) partial equilibrium model for its analysis. The findings of this study show that the WTO FTA will be favourable for Kenya as a country, due to benefits in terms of trade expansion estimated at US$ 995.16 million, plus benefits in consumer welfare effects to the value of US$ 103.98 million. Nevertheless, Kenya will incur losses in revenue amounting to US$817.15 million. The efficient management of the WTO FTA should go along with steps to develop revenue collection from other sources, for example, from income tax and Value Added Tax.

Keywords: WTO FTA, exports, imports, welfare, revenue, Kenya

1. INTRODUCTION

Trade liberalisation is becoming a common phenomenon among most developed and developing countries in pursuit of trade expansion (Khorana, Kimbugwe and Perdikis, 2009). Stromquist and Monkman, (2014), mention that elimination of the tariff and non-tariff barriers to trade were critical elements for ensuring freer trade. These elements included export duties, subsidies, import quotas and embargoes.

Economists, including (Lord, 2016); (Lee, 2013); (Francois and Pindyuk, 2013); (Makochekanwa, 2012); (Bilal, Dalleau and Lui, 2012); (Onogwu and Arene, 2013), argue that the growing consensus in freer trade among developing countries has numerous benefits, ranging from a positive balance of trade, the stimulation of growth through greater market access, and a

healthier inter regional competition. It would eventually lead to trade expansion and increased welfare gains. This, then, motivates some economists to direct their efforts into factors promoting freer trade and the growth in international trade (Ng & Yeasts, 2000).

According to (Cohn, 2015), trade liberalisation and economic integration protocols are mostly aimed at promoting foreign direct investment, wider markets for goods and service, and an increase in welfare and economic growth. (Hartzenberg, 2011), also argues that trade liberalisation is instrumental in the economic development of countries. This is through an increase in trade volumes, technology transfer, the promotion of political stability, and the promotion of social cohesion - especially in sub-saharan Africa, and other developing nations.

Caution has been enchoed by other economists that trade liberalisation is expected to bring about cost adjustment effects which come with a variety of potentially disadvantageous short-term effects, like reduced employment creation, and losses of uncompetitive industries (Eicher, Henn and Papageorgiou, 2012). McGovern, (2015) adds impetus to this debate by emphasizing that negotiation into trade liberalisation should be inclusive enough to factor in problems from macroeconomic instability resulting from balance of payments difficulties, and a fall in government revenue due to tax cuts, amongst other economic ills. WTO (2013), argues that trade liberalisation, in itself, is yet to be unambiguously confirmed to be directly related to economic growth. (Gebrehiwot and Sayim, 2015), acknowledged that the magnitude of cost adjustment ventures will have a likely relation to the swiftness through which resources transit from one sector to the other.

This study noted that the literature available found less evidence that is conclusive in terms of the effects of trade liberalisarion on a nation in both developed and developing nations. (Topalova and Khandelwal, 2011), argue that the literature is essentially inadequate. This implies that significant gaps have been inadequaltely addressed to cover findings and conclusions resulting from the facts and theory. Problems are evident through the use of openness as a measure of trade liberalisation, whereas some scholars have linked trade barriers to the source of dismal economic performance of most developing countries.

1.1 Statement of the Problem

Kenya opted to ignore the controversies linking trade liberalization to social welfare and economic development. Instead the Kenyan Government went further with structural adjustments programs and increased free trade agreements with nations. From the years 1995 to 2015, Kenya opened up its border and markets including the trading blocs such as the East Africa community free trade agreements (EAC), Common markets for Eastern and Southern Africa (COMESA), The Africa Growth and Opportunity Act (AGOA), to many bilateral free

trade agreements with individual states. Trade was brought closer through the multilateral (WTO) framework. This pushed Kenya along with other African nations with fewer options but to integrate and become a global market or they will face the threat of being marginalised.

Trade liberalization in Kenya has not been able to clearly show the expected creation of costs adjustment, and instead, it has been encompassed by numerous, potentially disastrous, short term effects (Gebrehiwot and Sayim, 2015). The outcomes realized are losses in industry due to high competition from WTO linked firms, reduced employment, reduced government revenue and numerous macro-economic problems (Kahouli and Maktouf, 2015). The WTO has encouraged Kenya, among other developing nations, to open up trading blocs for free trade, despite the potential disastrous effects. WTO (2013) makes it clear that trade liberalisation in itself has not been unambiguously confirmed to facilitate economic development, despite its numerous gains. To date, Kenya still seeks to quantify the gains arising from the WTO FTA, to justify its continued allegiance to the WTO treaty.

1.2 Aims of the Study

The aim of this paper is to assess the effect of World Trade Organisation unilateral liberalization on Kenya. Specifically, this paper will look into;

- Estimating the influence of trade liberalization on trade creation and trade diversion in Kenya.
- Assessing the effects of WTO FTA on the exports and imports in Kenya.
- Determining the revenue and consumer welfare effects of the WTO FTA in Kenya.
- Exploring the possible policy recommendations for Kenya

2. REVIEW OF RELATED LITERATURE

This section discussed areas covering the theoretical literature and empirical literature on the effects arising from the WTO FTA. This theoretical literature, in the main, includes trade creation, trade diversion, static and dynamic effects, revenue and welfare effects, and finally, the export and import quantities implications of the FTA. The empirical literature reviewed related studies to the aims of the study.

2.1. Trade Creation and Trade Diversion

Trade creation efficiently occurs when a lower cost producer, or a more efficient producer in the World Trade Organisation partner states, dislodges a high cost producer, or a less efficient producer in Kenya, making consumers in Kenya and its region to benefit through lower prices

and better quality (Urata and Okabe, 2014). Trade creation, however, may have negative effects on the Kenyan producers. This is whereby some of their products will be substituted by the more efficient producer in the world market. This indicates that Kenyan producers and industries have to increase their production efficiency to produce the best quality, and cheaper, to win the WTO market.

On the other hand trade, diversion denotes that a less efficient producer from the World Trade Organisation would dislodge a more efficient producer from outside the regional trade agreement (Kohl, 2014). This denotes therefor, that the consumers will get lower and more expensive quality goods as a result of the displacement of the efficient producer. This, due to the common external tariff levied on his goods. (Urata and Okabe, 2014) maintain that the fundamental question is whether the trade creation effect is greater than the trade diversion cost. (De Melo and Tsikata, 2015) also argue that free trade agreements could register gains for a nation when trade creation effects exceed the trade diversion effects.

2.2 Static and Dynamic Gains of Regional Economic Integration

In the formation of free trade agreements, the dynamic and static gains associated with regional trade agreements are significant. (Roberts, Vilakazi, and Simbanegavi 2014), list gains such as cost savings resulting from reduced customs offices, reduced costs in border patrols, and faster processing of goods, since both countries goods are given preferential access.

Other static and dynamic gains resulting from FTA include increased competition among member states which is necessary to encourage development through increased efficiency and reduced costs of doing business in the region (Kahouli and Maktouf, 2015). (Gebrehiwot and Sayim, 2015), further note that a free trade agreement will create greater market access, both financially, and through generated demand for goods and services that one country could not manage through promoting growth of exports. (Kahouli and Maktouf, 2015) also noted that with cheaper imports due to the reduced import duty, most nations are expected to grow industrially, especially when imports are used for the production of goods and services.

2.3 Welfare and Revenue Effects

On the assessment of the economic theory of trade liberalization, opposing forces appear to frequently resurface. These are the aspects such as cheaper prices against a decrease in government tariff revenue as a result of reduced import duty. (Matsushita, Schoenbaum, Mavroidis and Hahn, 2015), argue that free trade arrangements are mostly enhanced through reduced, or total elimination, of tariffs from imports and exports, which increase consumer

welfare. In this welfare of the WTO, members will be enhanced by the removal or reduction of tariffs duties.

A caution raised by (Viner, 2014), was that the impact of free trade is not straight forward. This meant that, in effect, free trade was also determined by the economic circumstances, making it very unpredictable. He also noted that in free trade arrangements, a nation should expect, either a trade creation effect, or a trade diversion effect. Trade creation implied that trade patterns moved from high-cost national production to lesser-cost production in a partner state in the free trade agreement, whereas trade diversion looked into a change from the lesser cost non-FTA manufacturers and producers, to the higher costs within the partner FTA states.

In view of the above discussion, it is noted that effect of an FTA on exports, imports, welfare and revenue, is unpredictable. This also implies that a number of theoretical view points on FTA are highlighting potential effects and essential guidelines without a general conclusion to be derived from the theory alone. This necessitates that, to answer questions of the influence of the most favoured nation's tariff rates on Kenya, a study has to be carried out, and the WITS/SMART model has the ability to give an answer.

2.4 Empirical Literature

(Mugano, Brookes and Le Roux, 2013), assessed the impact of most favoured nation tariff rate on Zimbabwe. Using the WITS/SMART-model, they were able to find out that trade expansion was valued at US$158.248 million and the consumer welfare was valued at US$ 21.019 million. They went further to examine the traded exports in Zimbabwe as they were expected to increase by US$106.633million, while imports were expected to grow US$158.245 million. It is also worth noting that their finding discovered that the country lost revenue amounting to US$131.759 million. They also noted that the biggest losses came from tobacco and tobacco products, which currently attracted a tax duty of 100 percent.

(Othieno and Shinyekwa, 2011) in East Africa explored the effects of the East African customs Union on Uganda 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 from 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 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) further realised that a decrease in the tariff by roughly 2 per cent on imports from Kenya had subsequently 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.

(Alfieri, Cirera and Rawlinson, 2006) examined trade effects of WTOFTA on Mozambique using the WITS/SMART Model approach. They worked on the assumption that Mozambique was going to unilaterally liberalise its trade policies with the World Trade Organisation framework. This included the entire withdrawal of tariffs, duty and surcharges, where as they retained the value added tax and excise taxes. (Alfieri, Cirera and Rawlinson, 2006) confirmed that Mozambique would experience an import growth of 4.68 per cent if it chose to liberalise its MFN rates. It was also evident that Mozambican consumers are anticipated to register welfare benefits of US$160 million.

The welfare gains anticipated by (Alfieri, Cirera and Rawlinson, 2006), can be attributed to the reduced commodity price which was expected to fall by 7.09 per cent if the country implements a trade agreement with the World trade organisation. (Alfieri, Cirera and Rawlinson, 2006), also revealed that Mozambique was anticipated to experience a substantial loss of revenue if it chose to implement WTO FTA. It was also realised that a sum of US$49 million of trade would mostly be diverted from the rest of the world to the WTO FTA.

The review of related literature has illustrated that various methods and empirical approaches have been used in the analysis of trade, revenue and welfare implications of the WTOFTA. It is also evident that the findings of these studies differ from one case to the other. The effects of the WTO FTA are subject to a number of economic factors which range from the country's initial tariff structure, its trade patterns, and many other varying factors.

It's therefore fundamental to note that no study has been carried out to assess the effects of complete trade liberalisation in the WTO settings on Kenya. This necessitates that a study needs to be carried out to assess the influence of World Trade Organisation Free Trade Agreement tariff rates on Kenya. This would aid Kenyan policy makers to be well prepared as they negotiate Kenya's trade matters in the Doha Round meetings.

3. MODEL FRAMEWORK

The study used partial equilibrium model (PEM) and the World-Integrated Trade Solutions/Software for Market Analysis and Restrictions on Trade (WITS/SMART) to examine the influence of WTO FTA on Kenya. This study specifically looked at trade creation, trade diversion, revenue effects, welfare effects and the implications on imports and exports. The PEM was chosen owing to its ability in computing the tariff effect of a single market on disaggregated product lines. Hence this study used a base year 2008, and a harmonised code of 6 will be used (Lord, 2016); (Fukunaga and Isono, 2013); (Lee, 2013); (Francois and Pindyuk, 2013); (Onogwu and Arene, 2013); (Makochekanwa, 2012); (Bilal, Dalleau and Lui, 2012); (Veeramani and Saini, 2010).

(Othieno and Shinyekwa 2011), explain that the PEM model has the strength to examine the impact of trade-regime reforms in the presence of imperfect substitutes. PEM models also evaluate the policy reform and the effects on the sectors that are directly affected, generally pointed out to be the first-round effects. The merits of the PEM model are that they require minimal data as the only data on trade flows, tariffs, and elasticities are required.

The WITS integrates various databases starting from bilateral trade, commodity trade flows 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 a commodity-trade statistic.; Trade Analysis Information systems (TRAINs)-tariff; para-tariffs and non-tariff measures; Integrated Data Base (IDB) and Consolidated Tariff Schedules (CTs) databases, gives simulated analytical tools to simulate trade policy analysis, such as the impacts of multilateral tariff cuts, free trade agreement, preferential trade liberalisation and ad hoc tariff changes Lang, (2006).

As Plummer, Cheong and Hamanaka, (2010) posited, the SMART paradigm runs on information contained in the UNCTAD managed TRAINS database. SMART, therefore, applies TRAINS data for tariff (applied tariffs) and trade information stored in the COMTRADE database for simulation purposes.

(Mugano, et al 2013), pointed out that the partial equilibrium SMART model was invented by UNCTAD and the World Bank in the 1980s, to use in assessing the effect of GATT rounds. The SMART paradigm is part of the software's that is 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, as (Plummer, Cheong and Hamanaka, 2010), had said. 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 such as Trade-creation effects; Trade-diversion effects; Net-trade impact (aggregate-trade creation and trade-diversion impacts); welfare effects, Tariff-revenue changes; and Variations in consumer surpluses. This being the reason it was employed in this study.

4. FINDINGS OF THE STUDY

This section presented the empirical findings and analysis of the influence of most favoured nation's tariff rates on trade creation, trade diversion, revenue effects, welfare effects, exports and imports in Kenya.

4.1 Comparative assessment of Kenya's and WTO tariff structure

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 structures 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, become 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 Kenyan 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 (Kiringai, 2010).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.

4.2 WITS/SMART simulations model results

This section of the study presented the results computed from the WITS/SMART simulations model. These results are the trade creation and trade diversion effects, consumer welfare and

revenue effects and, finally, the influence of WTOFTA on exports and imports which was presented as an export and market view.

(a) Trade creation and trade diversion

Using the WITS/SMART simulations outcomes shown in Table 1 are the trade creation and trade diversion effects as a result of the adoption the WTO FTA by Kenya.

Table 1: Trade creation and trade diversion effects from WTOFTA (US$ Millions) on Kenya

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
Other		372.16
Total		995.16

Source: Author's own calculations based on SMART simulations

Table 1 illustrates the possible trade creation and trade diversion effects on Kenya if it adopts the WTOFTA protocol. It is fundamental to emphasise that there is no possible 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 from 100% of the total trade effects meaning that the trade diversion effects were zero. It also suggested that the Kenya-WTOFTA would mostly have positive trade implications. This would thus lead to an improvement in consumer welfare resulting from the decreased import prices, and an improved quality of goods consumed by the superior producer from WTOFTA.

India is expected be the largest beneficiary of the 152 WTO member states generating a trade creation value of US$146.29 Million. This is followed by China which would be expecting a trade creation value of US$135.12 million. The nation with the third highest expected 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 .

The goods and services that are predicted to have the highest trade creation effects are 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 were comprised of sugar and sugar confectionary.

The findings from the WITS/SMART simulations demonstrate that the trade creation effect neutralised the trade diversion effect in Kenya which led to net welfare gains for the country under the WTOFTA. 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.* 2013) 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.

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. This can be witnessed especially if the expected welfare achievements are reversed.

(b) 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 2 shows the total revenue losses from the WTOFTA agreements on Kenya.

Table 2: 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 imperative to note that the levels of taxation in Kenya are a 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 to be liberalised in the WTOFTA. Table 2 indicates that the possible 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. According to the WTO (2013), these losses emanate from the fall in the import tariffs and taxes. This necessitates the Kenyan government to apply Value Added Tax on most imported goods and products to compensate for the revenue losses. The possibly most affected by 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 2.

These findings 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 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 were incurred from motor vehicle imports. This is similar to Kenya as motor vehicles are among the major contributors to revenue losses as shown in Table 2.

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 revenue loss as a result of the implementation of the World Trade Organisation Free Trade Agreement.

(c) Consumer welfare effects

The WITS/SMART simulations approach in table 3 reveals that Kenya was expected to experience benefits in consumer welfare of US$103.98 million through implementing the WTOFTA.

Table 3: 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

The total gains realised are seen to be insignificant as they represent only 0.18 per cent of Kenya's GDP as at 2014, which stood at US$60.94 billion (World Bank 2015). 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 3.

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.

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, although small and insignificant, especially constituted by 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.

(d) Export View

The findings show that 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.

The major export destination for Kenyan goods is the United Arab Emirates valued at US$1.753 billion 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 the export growth in Kenya is the increased market access for Kenyan goods and products to many nations, because of the unilateral trade liberalization framework (WTO 2013).

These findings have also been prompted by the rebounding effect. This impact leads to a cost reduction for the Kenyan producers who have a lower preferential tariff access to import raw materials, due to the tariff reduction for production of export-bound products.

Kenyan exports probably increased after the adoption of the WTOFTA which include commodities, like petroleum oils and oils obtained from bituminous minerals, and crude oil valued at US$2721.53 million. 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.

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, it would cause an increase in the quantity of exports.

(Mugano *et al.,* 2013), 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 implementation of the free trade agreements.

(e) Market view

In making use of the market view from the WITS/SMART simulations approach, this study was able to identify Kenya's imports expectation before the WTO free-trade treaty. These amounted to US$11.12451 billion. The Kenyan imports expectation 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 expected to rise by US$995.16 million. 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. Cereals had the second highest 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.

These findings are consistent with those of (Mugano *et al.,* 2013) 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. (Maskus & Chen, 2002). This confirms therefore, 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.

5. CONCLUSIONS AND POLICY OPTIONS

This section presented reviews and summaries of the research findings relating to the trade creation, trade diversion, revenue, consumer welfare, exports and market view effects of the WTOFTA on Kenya. It will be followed by the last section which will present the available policy options that Kenyan policy makers may choose to adopt.

5. 1 Summary of the Research Findings

This study arrived at the following findings using the WITS/SMART model approach in evaluating the influence of most favoured nation's tariff rates on Kenya.

1) Kenya is expected to have a trade creation effect amounting to US$ 995.16 million that would be necessary to offset the trade diversion effects. This would consequently lead to a net welfare gain after the unilateral implementation of the WTOFTA.
2) The WITS/SMART simulations findings indicate that Kenya is expected to suffer a revenue loss amounting to US$ 817.15 million resulting from the implementation of the WTOFTA. The losses are mostly be due to the withdrawal of tariff revenue from the member states which are part of the COMESA region, and without Kenya being adequately prepared to fill in the gap through alternative revenue.
3) The WITS/SMART simulation shows that Kenya will be expecting to experience consumer welfare gains amounting to US$103.98 million after the implementation of the WTO FTA treaty.
4) Kenya is also expected to register positive growth trends in both imports and exports. It is, however, noted that both imports and exports grew at the same pace both making growth of US$ 995.16 million.

It noted that the losses realised are eight times greater than the consumer welfare benefits. This necessitates that policy makers should work on reducing the losses as well as on increasing the welfare benefits from the free trade agreement with the WTO.

5.2 Policy Options for Kenya

This study notes that a free trade agreement is necessary and inescapable for Kenya. It also means that Kenya could put in place measures that would ease or eliminate the negative effect, thereby leading to increased gains from the WTO FTA.

i. Kenya, as a country, needs to work on improving its revenue collection. This would necessitate the improvement of methods and sources of revenue collection. This could be

solicited through corporate and personal taxes or excise duty, so as to fill the deficit arising from the expected tariff withdrawal due to WTOFTA. SKenya needs to factor in Value Added Tax as a vital trade policy instrument to alleviate revenue losses due to trade liberalisation suggested by (Mugano *et al*, 2013)

ii. The Kenyan government should discuss with the WTO partners on the modalities of a tariff phase down period for Kenya. This would ensure adequate time to facilitate her consolidations of gains from regional integration, and also develop its productive capacity for the infant industry in addition to the protection of sensitive sectors.

iii. The WTO, policy makers and government, need to educate and sensitize its citizen's and staff on the effects of trade reforms, to ensure that they take adequate steps to ensure higher consumer welfare.

iv. Kenyan policy makers should look into alternatives of developing their domestic market to increase revenue generation from other local taxes. That could fully compensate for the expected losses in revenue loss arising from lost tariff revenue through trade liberalisation (reduced taxes), and the increased budget supporting free trade transactions.

v. 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 among the trading partners and protect the consumers from substandard products that would reduce consumer welfare. It would also go a long way to protect the infant industry from unfair competition from other countries/firms, outside the RTA, that are smuggled into the region to enjoy preferential treatment at the expense of infant industries.

vi. The government of Kenya and the various free trade agreement boards should offer support service, especially trade capacity building. The various departments dealing with exports should equip and train members in the various regulations and standards (Quality control) needed, to ensure that they fully comply, and hence increase their exports, their revenue and the consumer welfare of Kenya.

REFERENCES

Alfieri, A., Cirera, X. And Rawlinson, A. (2006), Estimating the Impact on Mozambique of Different Trade Policy Regimes: SADC, SACU or MFN?

Bhagwati, Jagdish, (1994) "Regionalism and multilateralism: an overview", in Ross Garnaut and Peter Drysdale (eds.) Asia Pacific Regionalism: Readings in International Economic Relations, Harper Educational/Australia-Japan Research Centre, Australian National University

Bilal, S., Dalleau, M. and Lui, M. (2012), Trade Liberalisation and Fiscal Adjustments: The Case of EPAs in Africa, *European Centre for Development Policy Management*, Discussion Paper 137.

Cohn, T., 2015.*Global political economy*. Routledge.

De Melo, J. and Tsikata, Y., 2015. Regional integration in Africa: Challenges and prospects.

Eicher, T.S., Henn, C. and Papageorgiou, C., 2012. Trade creation and diversion revisited: Accounting for model uncertainty and natural trading partner effects. *Journal of Applied Econometrics*, *27*(2), pp.296-321.

Fukunaga, Y. and Isono, I., (2013), Taking ASEAN+1 FTAs towards the RCEP:A Mapping Study, ERIA Discussion Paper Series, *Economic Research Institute for ASEAN and East Asia Access ?*

Francois, J. and Pindyuk, O. (2013), Modelling the Effects of Free Trade Agreements between the EU and Canada, USA and Moldova/Georgia/Armenia on the Austrian Economy: Model Simulations for Trade Policy Analysis, FIW-Research Reports 2012/13 N° 03, Research Centre International Economics (FIW).

Gebrehiwot, A. and Sayim, M., 2015. Financial Market Integration: Empirical Evidence from the COMESA. *Business and Economic Research*, *5*(2), pp.242-252.

Guei, M., Mugano, G. and Le Roux, P (2015), The Impact of EU – FTA on South Africa, *Southern African Institute for Management Scientists.*

Handley, K. and Limao, N., 2012. Trade and investment under policy uncertainty: theory and firm evidence (No. w17790). National Bureau of Economic Research.

Hartzenberg, T., 2011.Regional integration in Africa. *Available at SSRN 1941742*.

Hoekman, B.M. & Mavroidis, P.C. 2015. Law, Economics, and Politics. World Trade Organization (WTO): Routledge.

Kahouli, B. and Maktouf, S., 2015. Trade creation and diversion effects in the Mediterranean area: Econometric analysis by gravity model. *The Journal of International Trade & Economic Development*, *24*(1), pp.76-104.

Khan, I. 2014. Why-Most-Kenyans-Feel-Over-Taxed. East African Standard, 2014. [Online]. (Accessed 15 May 2016).

Khorana. S, Kimbugwe, K. and Perdikis, N. (2009), Assessing the Welfare Effects of the East African Community Customs Union's Transition Arrangements on Uganda, Aberystwyth University.

Kiringai, J., 2010. 6 Trade and growth impacts for Kenya. *Assessing Prospective Trade Policy: Methods Applied to EU-ACP Economic Partnership Access*

Kohl, T., 2014. Do we really know that trade agreements increase trade?.*Review of World Economics*, *150*(3), pp.443-469.

IMF. 2015. IMF World Economic Outlook. June 2015. Washington DC: International Monetary Fund.

Laird, S. and Yeats, A. (1986), The UNCTAD Trade Policy Simulation Model, a Note on Methodology, Data and Uses, UNCTAD Discussion Paper 19, UNCTAD.

Lang, R. (2006), A partial-equilibrium analysis of the impact of the ECOWAS-EU Economic Partnership Agreement, United Nations Economic Commission for Africa.

Lee, S. (2013), The Effect of Free Trade Agreement (FTA) on Small Open Economics: Implications for the Korea - US (KORUS) FTA, Department of Economics, University of Minnesota-Duluth

Lord, C., 2016. *A democratic audit of the European Union*. Springer Pages/Volume

Makochekanwa, A. (2012), COMESA-EAC-SADC tripartite free trade area: Implications on welfare and food security, USAID, Gaborone. Access

Maskus and Chen, 2002. Parallel imports in a model of vertical distribution: Theory, evidence and policy. Pacific economic review, 7(2): 319-334.

Matsushita, M., Schoenbaum, T.J., Mavroidis, P.C. and Hahn, M., 2015.*The World Trade Organization: law, practice, and policy*. Oxford University Press. Pages

McGovern, E., 2015. *International trade regulation* (Vol. 2). Globefield Press. Pages

Mugano, G. 2013. The impact of trade liberalization on Zimbabwe. PhD Thesis, Nelson Mandela Metropolitan University

Mugano, G., Brookes, M. and Le Roux, P. (2013), The Impact of Most Favoured Nation Tariff Rate on Zimbabwe, *International Journal of Physical and Social Sciences*, Volume 3, Issue 7, 231 – 245.

Mugano, G., Brookes, M. & Le Roux. 2013. Estimating the impact of a COMESA Customs Union on Zimbabwe Using a Tariff Reform Impact Simulation tool (TRIST). African journal of business management, 4(10): 104-120

Ng, F. and Yeasts, A. (2000), The Recent Trade Performance of Sub-Saharan African Countries: Cause for Hope or More of the Same? World Bank, Washington DC.

Onogwu, G.O. andArene, C.J. (2013), Adjusting Liberalization due to Trade, Revenue, and Welfare Effects: An Economic Partnership Agreement Scenario between Cape Verde and the EU, Volume 3, Number 1, 87-107, Journal of Agriculture and Sustainability.

Othieno, L. and Shinyekwa, I. (2011), Trade, Revenue and Welfare Effects of The East African Community Customs Union Principle of Asymmetry on Uganda: An Application of Wits-Smart Simulation Model, *Economic Policy Research Centre*.

Plummer, M.G., Cheong, D. and Hamanaka, S. (2010), Methodology for Impact Assessment of Free Trade Agreements, *Asian Development Bank*, Mandaluyong City, Philippines.

Roberts, S., Vilakazi, T. and Simbanegavi, W., 2014, August. Understanding competition and regional integration as part of an inclusive growth agenda for Africa: key issues, insights and a research agenda. In *8th Annual conference on Competition Law, Economics and Policy* (Vol. 4).

Thiga, M. & Muturi. W. 2015. Factors that influence the compliance with tax laws among the small and medium sized enterprises. *International Journal of Scientific and Research Publications*, 5(6): June 2015.

Topalova, P. and Khandelwal, A., 2011. Trade liberalization and firm productivity: The case of India. *Review of economics and statistics*, *93*(3), pp.995-1009.

Urata, S. and Okabe, M., 2014. Trade Creation and Diversion Effects of Regional Trade Agreements: A Product-level Analysis. *The World Economy*, *37*(2), pp.267-289.

Veeramani, C. and Saini, G.K. (2010), Impact of ASEAN-India FTA on India's Plantation Commodities: A Simulation Analysis, Indira Gandhi Institute of Development Research, Mumbai, India

Viner, J., 2014.*The customs union issue*. Oxford University Press.

WTO (2013), Understanding the WTO: The Agreements: Anti-Dumping, Subsidies, Safeguards: Contingencies, Geneva, Switzerland.

World Bank, (2015.) Trading Economics: Kenya GDP retrieved online [2016-05-15] http://www.tradingeconomics.com/kenya/gdp