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A Comparative Evaluation of the Impact of Stays of Applications and Duty Remission Schemes On Customs Revenue at KRA

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Abstract

The East African Community (EAC) was established in 1999 and the partner states to the EAC treaty agreed to eliminate by 2010 internal tariffs based on the principle of asymmetry. The partner states also agreed to set a three-band Common External Tariff (CET) with 0% for raw materials, capital goods and agricultural inputs; 10% for intermediate goods and essential industrial inputs and 25% for finished Consumer products. The EAC Partner states including Kenya adopted the use of Stay of Application of EAC CET and Duty remission schemes as a way of protecting infant domestic industries and boosting manufacturing for export. In view of increased state revenues collection by Kenya Revenue Authority (KRA) and the ballooning government expenditure, Kenya has been operating on deficit financing which has prompted the Government of Kenya (GoK) through Treasury to opt for foreign loans borrowings to bridge the existing revenue gap. The purpose of this research was to undertake a comparative evaluation of the impact of Stay of applications and Duty remission schemes on Customs revenue at KRA. The General Equilibrium Theory of Effective Protection and Resource Allocation and the Optimal Tariff Theory are the theoretical framework that underpinned this research. The research adopted explanatory research design using quantitative approach and relied on secondary data sourced from KRA Customs department. From the findings of the simple regression analysis, it was established that both Stay of Applications of EACCET and Duty Remission Schemes accounted for Customs Revenue Collection Forgone by KRA. However, Duty Remission Schemes accounted for more variance in the forgone Customs Revenue by KRA compared to the Stay of Applications of EACCET. It was also established that for every unit increase in Stay of Applications of EACCET, there was a 14.920 Currency units increase in Customs Revenue Collection Forgone by KRA. Likewise, it was also established that for a unit increase in Duty Remission, there was a 43.829 Currency units increase in Customs Revenue Collection Forgone by KRA other factors held constant. Therefore, the study concluded that Duty remissions accounted for more variance in the Customs Revenue Collection Forgone by KRA. At the same time, increased usage of country-level deviations from the common tariff schedule through Stay of Application of EAC CET and Duty remission schemes has rendered the Common External Tariff of the Customs union less "common" negatively affecting Customs revenues. From the research findings, it was established that use of Stays of Applications EACCET's as well as the high uptake of the Duty Remission by local entities have negative impact in terms of Customs revenue forgone. To

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safeguard Customs revenue, the research recommended that the GoK through its representatives in the Duty remission Committees and EAC Council should ensure that there is no double uptake of both Duty Remissions and Stays of Applications of EACCET by the same entities.
Key words: Stay of Application, Duty Remission, Customs Revenue

1. Background

The East African Community is a Customs Union governed by East Africa Community Common External Tariff (EACCET). The East African Community (EAC) Customs Union Protocol signed in 2004 by the three East African head of state for Kenya, Uganda and Tanzania is aimed at deepening the integration of the economies of the EAC partner states. This was an important step in a process that began in 1917 when Kenya and Uganda Protectorate Customs were amalgamated. Thereafter in 1967, the East African Community was established and partly due to ideological differences among the respective partner states, the EAC collapsed in 1977. Kenya, Tanzania and Uganda were the founding members of the revived EAC established in 1999 and the first signatories of the Customs Union Protocol in signed in 2004. Burundi and Rwanda joined the EAC in 2007. The EAC CET has been reviewed numerously with partner states considering higher rates of external protection and an increase in the number of tariff bands.

Article 36 of the EAC Customs Union Protocol provides for the Safeguard Clause. This clause provides that in the event of serious injury or threat of serious injury occurring to the economy of a Partner State, the Partner State concerned shall, after informing the Council through the Secretary General and the other Partner States, take necessary safeguard measures. The Council shall examine the method and effect of the application of existing safeguard measures and take appropriate decisions.

Trade remedies are trade policy tools that government across the world employ to take remedial action against im¬ports that causes damage domestic producers. These remedies include anti-dumping, safeguards, and countervailing measures.

Under Article VI of GATT 1994, and the Anti-Dumping Agreement, WTO Members can impose anti-dumping measures, if, after investigation in accordance with the Agreement, a determination is made that dumping is occurring, that the domestic industry producing the like product in the importing country is suffering material injury, and that there is a causal link between the two. In addition to substantive rules governing the determination of dumping, injury, and causal link, the Agreement sets forth detailed procedural rules for the initiation and conduct of investigations, the imposition of measures, and the duration and review of measures.

The WTO Agreement on Subsidies and Countervailing Measures (ASCM) strengthens discipline on trade distorting subsidies that other governments use to give their firms an unfair competitive advantage. Unlike the 1979 Tokyo Round Subsidies Code (Tokyo Round Code), which only 24 countries joined, all countries that become members of the WTO automatically are subject to the ASCM.

Kenya that recently passed trade remedies law cited as The Kenya Trade Remedies Act 2017. Section 3 of the Act establishes the Kenya Trade Remedies Agency (KETRA). Section 5 (a) of gives the KETRA the authority to investigate and impose anti-dumping, countervailing and trade safeguard measures and for connected purposes. This legislation gives Kenya a legal framework implementing Article VI of GATT on antidumping and Countervailing duties as well as well as Anti-Dumping Agreement.

Considering that Countervailing and Anti-Dumping duties coupled with the use of Stay of Applications of EACCET's and Duty Remission Schemes are some of instruments that Kenya employs to enhance the growth of its infant industries and improve revenue collections, the focus of this research was to determine the impact of Stay of Application and Duty remissions schemes on Customs revenue collection in Kenya.

At the onset of the Customs Union, the partner states agreed to eliminate, by 2010, internal tariffs based on the principle of asymmetry and set a three-band Common External Tariff (CET) with 0% for raw materials, capital goods, agricultural inputs; 10% for intermediate goods and other essential industrial inputs and 25% for finished Consumer goods. Rules of origin was also agreed upon to accord preferential tariff treatment to goods originating in the EAC countries.

Presently, as part of the EAC Customs Union agreement, a total of 62 commodities are designated as EAC Sensitive Items with 31 commodities being agricultural tariff lines at the eight-digit level of the Harmonized System. The list of Sensitive Items under the second schedule of the EACCET contains products for which EAC member states agree to issue extreme levels of protection through tariffs ranging from 35% to 100%. Notably, many of the 62 products on the list are food staples such as maize, rice, and flour. Other sensitive items

include sugar, dairy products, tobacco, a number of apparel products, as well as used clothing.

The Common External Tariff (CET) rates for these products are higher than the 25% maximum rate for non-sensitive products. With flexibility provision in the EAC Customs Union Protocol, the system of Stay of Application of EACCET and Duty remissions schemes permits authorities to reduce or eliminate tariffs rates of both the sensitive and non-sensitive items under first and second schedule of EACCET. A Stay application is a scheme, under which the EAC partner states can accept a new CET upon the request of a member country like Kenya which essentially amounts to a temporary suspension of the EAC CET. The new rate is normally published in the EAC Gazette.

On the other hand, Duty Remission is a waiver of duty or refrainment from exacting of duty. Duty remission is mainly provided to encourage manufacture of goods for exports as well as to waive duties on goods that are damaged while under Customs control. Section 140 of the East African Community Customs Management Act 2004 empowers the EAC Council to grant remission of duty on goods imported for the manufacture of goods for export or for home use in case of an urgent national need. The procedure for approval of goods for which remission may be granted is provided for in the East African Community Customs Management (Duty Remission) Regulations 2008.

The determination of an appropriate tariff rate for a sensitive product is a divisive issue even for individual EAC partner states. More so for a Customs Union with six member states. There are two sources of this divisiveness in the case of the EAC CET. One is the CET rates themselves, i.e. whether the current rates are appropriate given the development objectives of the community. The other is the remissions system, i.e. what are the appropriate timing, levels and durations of the duty remissions.

With the EACCET having been reviewed, each EAC member state made a submission to the EAC secretariat. Amidst COVID-19 Pandemic, EAC partner states have adopted various measures on EAC Common External Tariff (CET) with the aim of boosting local production in the region. The new import tax changes was approved during the Pre-Budget Consultations of the Ministers/Cabinet Secretary of Finance that was held in May 2020. The import duty measures in the EAC Gazette issued on 30th June 2020 can be put into three main categories which are Duty Remission for Industrial Inputs, Stays of Application and Amendments of the East African Community Customs Management Act, 2004.

These duty remission measures are strictly specific for the gazette manufacturers who have applied for the importation of a specific amount of input product at the reduced import duty rate.

On the other hand, the Stays of Application measures instituted are on final products reported in two scenarios; First, where EAC Partner States agree to stay application of the EAC CET rate and apply a higher duty rate for the imported products and secondly in a scenario where EAC Partner States agree to stay application of the EAC CET rate and apply a lower duty rate for imported products.

All of these issues require studies and stakeholder consultations. Likewise, the policy complication due to membership of the EAC members in multiple Regional Economic Communities such as the COMESA and SADC also needs to be resolved.

1.2 Statement of the Problem

In view of increased state revenues collection by Kenya Revenue Authority (KRA) and the ballooning government expenditure, Kenya has been operating on deficit financing which has prompted the Government of Kenya (GoK) through Treasury to opt for foreign loans borrowings to bridge the existing revenue gap.

Excessive protection of infant industries through Stay application of EACCET's and Duty remission schemes have adverse consequences in terms of their growth and also Customs revenues collection at Kenya Revenue Authority (KRA). The tariff rate variations for sensitive commodities under the second schedule of the EACCET disincentives the underlying Kenyan industries from being competitive in the international markets. The only justification being Kenyan textile and apparel exports that compete with products from competitor countries with zero production cost hence need protection in form the of tariffs. Many of the sensitive products listed in the second schedule of the EACCET nomenclature are staple food including maize, rice and flour. As such high prices resulting from excessive tariffs on these products disproportionally tax Kenyan poor households who spend a large share of their income on these goods.

The provision of Stays of Applications in the EACCET allows Kenya to apply for an exemption of a tariff agreed at the EACCET-level for any given product in the first and second schedule of EACCET. A different form of Duty exemption in the EACCET Nomenclature is the Duty Remission Scheme. Unlike the Stays of Application of EACCET, which constitute country wide exemptions, the Duty Remission Scheme allows for Kenyan manufacturers to apply for tariff exemption of the imported good if it is used as an input for production.

The EACCET and Duty Remission Scheme are flawed for the following reasons. Research has shown that access to duty remissions is highly dependent on political influence and firm size. As such it is discriminatory against smaller and less connected firms. Secondly, the scheme is prone for corruption. For instance, evidence suggest that it is possible for a well-connected firm to import its actual final good cheaply and duty free from a technologically advanced economy under the scheme and sell it off in Kenya as a domestically produced product. Consequently, the frequent

use of Stays of Applications in the EAC, as well as the high uptake of the Duty Remission Scheme by the same Kenyan entities point to a fundamental flaw in the design of the CET.

In addition to the flaw in the design of Common External Tariff, the three-band structure of 0% for raw materials, 10% for intermediate inputs and 25% for final consumer products means that entities applying for a remission from duty payments form an exception. Research has also shown that the frequent use of the Duty Remission Scheme can be found in the misclassification of different products into the three bands of the CET. All these factors have implications on Customs revenue collection by Kenya Revenue Authority (KRA).

Based on the research gap that existed with respect to Stays of Applications of EACCET, Duty Remission Schemes and Customs Revenue Collection at KRA, this research was conducted to bridge the existing research gap.

1.3 Research Objectives

The general objective of this research was to interrogate the Impact of Stays of Applications and Duty Remission Schemes on Customs Revenue at KRA.

The specific objectives were as follows;

To determine the impact of Stays of Applications of EACCET on Customs Revenue Collection Forgone by KRA.

To the impact of Duty Remission Schemes on Customs Revenue Collection Forgone by KRA.

1.4 Research Hypothesis

H01: Stay of Applications of EACCET has no significant effect on Customs Revenue Collection Forgone by KRA.

H02: Duty Remission Schemes has no significant effect on Customs Revenue Collection Forgone by KRA.

2. Theoretical Framework

2.1.1 The General Equilibrium Theory of Effective Protection and Resource Allocation.

The General Equilibrium Theory of Effective Protection and Resource Allocation. Analyses the impact of tariffs on the total value of final goods. The Effective Rate of Protection (ERP) takes into account the implications of the entire tariff structure, rather than tariffs on individual imported commodities, for the pattern of output in the economy.

Krugman (1982) postulates that tariff increases the share of the home firm in the domestic market to the detriment of the foreign firm. This lowers the home firm's marginal cost and raises that of the foreign firm. Hence, the situation in the foreign market also moves in favour of the home firm. Mundell (1961) concluded that with a fixed exchange rate and in the absence of extensive retaliation, a tariff may generate higher output and employment. Mundell result relies on the Laursen-Metzler hypothesis that savings will increase with improved terms of trade, due to an increase in real disposable income.

Chan (1978) studies shows that when a money market is added to Mundell's model, a tariff is contractionary even without the Laursen-Metzler assumption. Krugman (1982) argues that Mundell's tariff ineffectiveness result holds for a number of monetary extensions of Mundells 1961 model. Ford & Sen (1985) demonstrated that in a large number of circumstances, tariffs have positive effects on output and employment if the money demand function is specified in Keynesian terms, allowing for interest effects on money demand. This theory underpins the two research objectives that determined the impact Stay of Applications of EAC CET and Duty Remission Schemes on Customs Revenue Collection forgone by KRA.

2.1.2 Optimal Tariff Theory.

Robert Torrens, John Stuart Mill, Alfred Marshall, Henry Sidgwick, C.F. Bickerdike (1906), and Francis Y. Edgeworth (1894) are the six British classical and neoclassical economists who formulated Optimum Tariff Theory. Others are; Johnson (1953), Kennan and Riezman (1988), Samuelson (1939) respectively (Humphrey, 1987). They showed that a suitably small tariff could, under certain conditions, benefit the importing country by improving its terms of trade. They stressed also pointed out likelihood of foreign retaliation. Torrens and Bickerdike advocated for Tariff and as opposed to free trade as a means to improve terms of trade. The other economists advocated for free trade as opposed to tariff as a means to improve terms of trade.

These economists showed how optimal tariff theory evolved through five stages. First came the demonstration that import duties improve the terms of trade through gold flows and their effects on relative national price levels or by restricting import demand. The next demonstration was that export taxes accomplish the same result by restricting export supply and that the extent of terms of trade improvement depends crucially upon certain size of demand elasticities.

There followed a geometrical restatement of these results using offer curve analysis. Next appeared the indifference curve and consumer surplus models measuring the gain from terms of trade improvement and specifying the tariff rate that maximizes the gain. Finally came the mathematical statement of the theory including a rigorous demonstration that a tariff can improve national welfare and a deviation of the formula for the optimum tariff. Each stage saw a different inoovator – Robert Torrens, John Stuart Mill, Alfred Marshall, Henry Sidgwick, C.F.Bickerdike 1906, and Francis Y. Edgeworth 1894. This theory underpins the two research objectives that intended to establish the impact Stay of Applications of EAC CET and Duty Remission Schemes on Customs Revenue Collection forgone by KRA.

2.2 Empirical Review

There are relatively few studies on the impact of stay of application and duty remission on Custom revenue. On the CET itself, Stahl (2005) presents some interesting views on the role of tariff protection to sensitive products before and after the Customs Union. He notes likely trade diversion effects and negative social consequences following the

increases in import protection to sensitive products. The CET is also expected to raise prices for final consumers and for producers using the imported products as inputs. Stahl also questions the ability of the EAC members, given their different situations and interests, to maintain a stable and predictable application of the CET and other Customs Union provisions. A further potential risk is the negative impact on food value chains and interests of the private sector, as well as the building of well-functioning regional markets.

Nathan, Nunn, & Daniel (2010) study on the Structure of Tariffs and Long-Term Growth show that the skill bias of a country's tariff structure is positively correlated with long-term per capita GDP growth. Tariffs expand output of the industry they are protecting. The study finds evidence consistent with the existence of real benefits from tariffs focused in skill-intensive industries. However, the study only accounts for a quarter of the total correlation between skill-biased tariffs and growth.

A paper from KIPPRA (2010) takes a regional perspective and places trade policy as an important parameter in the determination of food prices in the region. It points to potential difficulties arising from the disparities in the application of tariffs on sensitive products, which, together with exemptions and duty remission schemes, lead to price disparities in the region and encourage anti-competitive practices such as hoarding and smuggling. A short paper by the US Foreign Agricultural Service in Nairobi (USDA 2010) looks at the effects of the rice CET and makes three points: CET has been partly responsible for keeping domestic prices high but this has also encouraged production mostly via area expansion.

Odhiambo (2011) study on economic analysis of the rice tariff by simulating the outcomes of replacing the sensitive CETs with the rates in the highest CET band (i.e. reducing tariffs to 20% or 10%). It finds that improvements in consumer surpluses are larger for Uganda than for Kenya and Tanzania, presumably because of the larger production bases in these countries. Lower tariffs also lead to revenue losses. The author points to the limitations of tariff changes and instead suggests that the bulk of the benefits of regional integration comes from addressing supply-side constraints, improving competitiveness, eliminating non-tariff barriers to trade and avoiding policy uncertainty due to multiple membership in regional trading blocs.

Conceptual Framework

3. Research methodology

The research adopted explanatory research design using quantitative approach. Explanatory design was appropriate for this research as it established causality relationships between both the Stay of Applications of EACCET (Kenya) and Duty remission Schemes on Customs revenue collection at KRA through quantitative data.

In relation to data analysis, the research relied on secondary data drawn from the KRA Customs department. The type of data employed in the research was panel data.

The population of the study were mainly commodities imported from China and India that enjoy Duty Remissions and Stay of application of EACCET's. Please refer to the appendix I for the list of some Commodities under Stays of Applications EACCET's and Duty Remissions that were the focus of this research for the period 2015-2020.

Data collected was cleaned, sorted, tabulated and thereafter entered in a Statistical Software for Social Science application (SPSS) version 22 for data analysis. Data analysis employed both descriptive statistics (means and standard deviation) and inferential statistics (Pearson correlation and multiple regression analysis) to establish the relationship between the dependent and the independent variables. From the multiple regression analysis, the following models were established:

Model 1

$Y= \beta 0+ \beta 1X1+\varepsilon$

Where;

Y is the Customs Revenue Collection Forgone by KRA;

X1 is the Stays of Applications of EACCET;

$\beta 0$ is the regression constant/Y-intercept while $\beta 1$ is the slope of the regression equation.

ε is the error term

Model 2

$Y= \beta 0+ \beta 1X1+\varepsilon$

Where; Y is the Customs Revenue Collection Forgone by KRA;

X1 is Duty Remission Schemes;

$\beta 0$ is the regression constant/Y-intercept while $\beta 1$ is the slope of the regression equation.

ε is the error term

4. Data analysis and research findings

The general objective of this research was to interrogate the Impact of Stays of Applications and Duty Remission Schemes on Customs Revenue at KRA. Specifically the research sought to determine the impact of Stay of Applications of EACCET and Duty Remission Schemes on Customs Revenue Collection Forgone by KRA.

The three types of Customs revenue heads that were interrogated were Import Duties, Excise Duties and VAT. To Compute Customs Revenue Forgone, Customs revenues remitted were deducted from Customs revenues computed for the various categories of commodities that were under Stay of Applications of EACCET and Duty Remission Schemes for the years 2015-2020.

4.1 Descriptive statistics

4.1.1 Descriptive Statistics on Customs Revenue Collection Forgone by KRA based on Stay of Applications of EACCET.

The research sought to examine the descriptive statistics on Customs Revenue Collection Forgone by KRA based on bi-

annual Customs revenues collection for the period 2015-2020 as it relates to Stays of Applications of EACCET. The three types of Customs revenue heads that were interrogated are Import Duties, Excise Duties and VAT. The descriptive statistics employed both means and standard deviations. The findings are shown on table 1.2.

Table 1.2 Descriptive Statistics on Customs revenue collection forgone by KRA based on EAC Stay of Applications of EACCET

From the findings on table 1.2 on Customs Revenue Collection Forgone by KRA based on EAC Stay of Applications, it was established that between the years 2015-2020, the minimum Customs revenue forgone was Kes 788,554,799.00 and the maximum was Kes 2,347,191,384.00 with a mean of 1,393,374,995.50 and a Standard deviation of 482,705,233.11.

4.1.1 Descriptive Statistics on Customs Revenue Collection Forgone by KRA based on Duty Remission Schemes

The research sought to examine the descriptive statistics on Customs revenue forgone by KRA based on the annual Customs revenues collection for the period 2015-2020 as it relates to Duty Remission Schemes. The three types of Customs revenue heads that were interrogated are Import Duties, Excise Duties and VAT. The descriptive statistics employed both means and standard deviations. The findings are shown on table 1.2.

Table 1.3 Descriptive Statistics on Customs Revenue Collection Forgone by KRA based on Duty Remission Schemes

From the findings on table 1.3 on Customs Revenue Collection Forgone by KRA based on Duty Remission Schemes, it was established that between the years 2015-2016, the minimum Customs revenue forgone was Kes 2,608.227,240 and the maximum was Kes 12,955,589,952 with a mean of 992,8151,040.83 and a Standard deviation of 3,809,947,727.65.

From the descriptive statistical findings on Customs revenue forgone from both Stay of Applications of EACCET and Duty Remission Schemes, it was deduced that Customs revenue collection forgone was higher with respect to Duty Remission Schemes (Kes 12,955,589,952) compared to Stay of Applications of EACCET (Kes 2,608, 227,240) based on maximum values for the period 2015-2020.

From the findings, it can also be deduced that there was greater variation in Customs revenue forgone with respect to Duty remissions Schemes as indicated by the standard deviation values of 3,809,947,727.650 (Duty Remission Schemes) and 482,705,233.11(Stay of Application). Figure 1.1 shows the Standard Deviations of Customs Revenue Forgone between Stay of Application of EACCET and Duty Remission Schemes.

Figure 1.1 Standard Deviations of the Customs Revenue Collection Forgone by KRA based on Stay of Application of EACCET and Duty Remission Schemes.

4.2 Inferential statistics

4.2.1 Correlation Analysis

Pearson Correlation analysis was employed to establish the strength of linear association between the dependent and the independent variables. Correlation analysis is one of the research tools that assists the researcher to make a valid conclusion based on the nature of the relationship between the dependent and the independent variables. Normally a correlation coefficient (r) lies between +1 and -1 with interpretations as follows: If $r = -1$, there is a perfect negative correlation; If $-1 < r < -0.75$, there is a strong negative correlation; If $-0.75 < r < -0.25$, there is a fair negative correlation; If $-0.25 < r < 0$, there is weak negative correlation. If $r = 0$, there is no correlation. On the other hand, if $0 < r < 0.25$, there is a weak positive correlation; If $0.25 < r < 0.75$, there is a fair positive correlation; If $0.75 < r < 1$, there is a strong positive correlation; If $r = 1$, there is a perfect positive correlation. A positive correlation means the dependent and the independent variables affect each other in a way that as one improves the other also improves with a negative correlation indicating the opposite. For this research, the test of significance was done at 5%.

Correlation Analysis between Customs revenue collection forgone by KRA and Stay of Applications of EACCET.

Correlation analysis was conducted to establish the relationship between Customs revenue collection forgone by KRA and quantities of commodities under Stay of Applications of EACCET for the period 2015-2020. The findings were as follows;

Table 1.4 Correlation Matrix between Customs Revenue collection forgone by KRA and Stay of Applications of EACCET.

From the findings on table 1.4, a significantly fairly strong and positive correlation between Stay of Applications of EACCET and Customs Revenue Forgone at KRA was observed ($r=0.569$, $p=0.05 \leq 0.05$). This was interpreted to mean that Stay of Applications of EACCET significantly and positively influenced Customs Revenue Forgone at KRA for the years 2015-2020.

Correlation Analysis of the Customs Revenue Collection Forgone by KRA and Duty Remission Schemes

Correlation analysis was conducted to establish the relationship between Customs revenue collection forgone by KRA and the quantities of commodities under Duty Remission Schemes for the period 2015-2020. The findings were as follows;

Table 1.5 Correlation Matrix of Customs Revenue Collection Forgone by KRA and Duty Remission Schemes.

From the findings on table 1.5, a significantly strong and positive correlation between Duty Remission Schemes EACCET and Customs Revenue Collection Forgone by KRA was observed (r=0.968, p=0.002<0.05). This was interpreted to mean that Duty Remission Schemes significantly and positively influenced Customs Revenue Collection Forgone by KRA for the years 2015-2020.

4.2.2 Simple Regression Analysis

Simple regression analysis was employed to establish the relationship between the dependent variable Customs Revenue Collection Forgone by KRA and the independent variable Stay of Applications of EACCET and Duty Remission Schemes.

Simple Regression Analysis between Customs Revenue Collection Forgone by KRA and Stay of Applications of EACCET.

The results of regressing Customs Revenue Collection Forgone by KRA on quantities of commodities under Stay of Applications of EACCET were as follows:

Table 1.6 Model Summary

Table 1.6 presents the values of R (Correlation Coefficient), R square and the adjusted R square (Coefficient of determination). This value explains how Customs Revenue Collection Forgone by KRA varied with Stay of Applications of EACCET. The Coefficient of determination was interpreted to mean that 25.7 % of all changes in the Customs Revenue Collection Forgone by KRA was explained by Stay of Applications of EACCET. This implies that the remaining 74.3 of the variation in Customs Revenue Collection Forgone by KRA was accounted for by other factors

Table 1.7 ANOVA

Table 1.7 on Analysis of Variance (ANOVA) shows that the F-calculated was statistically significant at (F=4.795, p=0.05 ≤ 0.05) i.e F-calculated was was greater than F-critical. This was deduced to mean that the model was statistically significant and a good fit for regression.

Table 1.8 Coefficients

Based on the findings on coefficients table 1.8, the constant was interpreted as follows; when the independent variable namely Stay of Applications of EACCET was at zero, Customs Revenue Collection Forgone by KRA was Kes 868,787,993 for the period 2015-2020. Based on the finding of the Beta Coeficient, it was deduced that Stay of Applications of EACCET (β1=14.920, p=0.05 ≤ 0.05) positively and significantly influenced Customs Revenue Collection Forgone by KRA. This is interpreted to mean that keeping all other factors constant, a unit increase in Stay of Applications of EACCET leads to a 14.920 Currency unit increase in Customs Revenue Collection Forgone by KRA.

Simple Regression Analysis between Customs Revenue Collection Forgone by KRA and Duty Remission Schemes

The results of regressing Customs Revenue Collection Forgone by KRA on Duty quantities of commodities under Duty Remissions Schemes were as follows:

Table 1.9 Model Summary

Table 1.9 presents the values of R (Correlation Coefficient), R square and the adjusted R square (Coefficient of determination). This value explains how Customs Revenue Collection Forgone by KRA varied with Duty Remission Schemes. The Coefficient of determination was interpreted to mean that 92.1 % of all changes in Customs Revenue Forgone was explained by Duty Remission Schemes. This implies that the remaining 7.9 of the variation in Customs Revenue Collection Forgone by KRA was accounted for by other factors.

Table 2.0 ANOVA

Table 2.0 on Analysis of Variance (ANOVA) shows that the F-calculated was statistically significant at (F=59.534, p=0.002 < 0.05) i.e F-calculated was was greater than F-critical. This was deduced to mean that the regression model was statistically significant and a good fit for regression.

Table 2.1 Coefficients

Based on the findings on coefficients table 2.1, the constant was interpreted as follows; when the independent variable namely Duty Remission Schemes was at zero, Customs Revenue Collection Forgone by KRA was Kes 148,257,073.117 for the period 2015-2020. Based on the finding of the Beta Coefficients, it was deduced that Duty Remission Schemes (β1= 43.829, p=0.000 < 0.05) positively and significantly influenced Customs Revenue Collection Forgone by KRA. This was interpreted to mean that keeping all other factors constant, a unit increase in Duty Remission leads to a 43.829 Currency unit increase in Customs Revenue Collection Forgone by KRA.

4.3 Model Specification

From the simple regression analysis, the following optimal models were established.

Model 1: $Y= 868,787,993.132+14.920X1+\varepsilon$

Where; Y is the Customs Revenue Collection Forgone by KRA;

X1 is Stay of Applications of EACCET;

ε is the error term

Model 2: $Y= -148257073.117+ 43.829X1+\varepsilon$

Where; Y is the Customs Revenue Collection Forgone by KRA;

X1 is Duty Remission Schemes;

ε is the error term

4.4 Hypothesis Testing

The research sought to determine the impact of Stay of Applications of EACCET and Duty Remission Schemes on Customs Revenue Collection Forgone by KRA. The null hypotheses of the research were as follows:

H01: Stay of Applications of EAC CET has no significant effect on Customs Revenue Collection Forgone by KRA.

H02: Duty Remission Schemes has no significant effect on Customs Revenue Collection Forgone by KRA.

Based on the coefficients table 1.8 and 2.1, the probability values (p-values) of the both Stay of Applications of EACCET ($p=0.05 \leq 0.05$) and Duty Remission Schemes ($\beta 1= 43.829$, $p=0.000 < 0.05$) were found to be less than 0.05. Likewise, based on the test of significance values (t-values) of both Stay of Applications of EACCET ($t=2.190>2.000$) and Duty Remission Schemes ($t= 7.716>2.000$) were found to be greater than 2.00.

Therefore the research rejected all the two null hypotheses and accepted the alternative that

H1: Stay of Applications of EACCET has a significant effect on Customs Revenue Collection Forgone by KRA;

H2: Duty Remission Schemes has a significant effect on Customs Revenue Collection Forgone by KRA.

5.1 Conclusion

From the descriptive statistical findings on Customs Revenue Collection Forgone by KRA as a result of Stays of Applications of EACCET and Duty Remission Schemes, it was deduced that based on maximum Custom revenue forgone values for the period 2015-2020, Customs Revenue Collection Forgone by KRA was higher with respect to Duty Remission Schemes (Kes 12,955,589,952) compared to Stay of Applications of EACCET (Kes 2,608.227, 240). From the findings, it was also deduced that there was greater variation in Customs Revenue Collection Forgone by KRA with respect to Duty remissions Schemes as indicated by the standard deviation values of 3,809,947,727.650 (Duty Remission Schemes) and 482,705,233.11(Stay of Application).

From the findings of the correlation analysis of Stay of Applications of EACCET and Remission Schemes, both variables were found to influence Customs Revenue Collection Forgone by KRA. However, based on the correlation coefficient, a significantly strong and positive correlation between Duty Remission Schemes and Customs Revenue Collection Forgone by KRA was observed ($r=0.968$, $p=0.002<0.05$) compared to Stay of Applications of EACCET ($r=0.569$, $p=0.05 \leq 0.05$).

From the findings of the simple regression analysis, it was established 25.7 % of all changes in Customs Revenue Collection Forgone by KRA is explained by Stay of Applications of EACCET. Likewise, 92.1 % of all changes Customs Revenue Collection Forgone by KRA is explained by Duty Remission Schemes. This can be deduced to mean that both Stay of Applications of EACCET and Duty Remission Schemes accounted for the Customs Revenue Collection Forgone by KRA. However, Duty Remission Schemes accounted for more changes in the Customs Revenue Collection Forgone by KRA compared to Stay of Applications of EACCET.

With respect to the Beta values, it was also established a unit increase in Stay of Applications of EACCET leads to a 14.920 Currency unit increase in Customs Revenue Collection Forgone by KRA other factors held constant. It was established that a unit increase in Duty Remission leads to a 43.829 Currency unit increase in Customs Revenue Collection Forgone by KRA other factors held constant. As such, Duty remission schemes accounted for more variance in the Customs Revenue Collection Forgone by KRA for the period 2015-2020. At the same time, increased usage of country-level deviations from the common tariff schedule through Stay of Application of EAC CET and Duty remission schemes has rendered the Common External Tariff of the Customs union less “common” negatively affecting Customs revenues.

5.2 Recommendations

From the research findings, it was established that use of Stays of Applications EACCET’s as well as the high uptake of the Duty Remission by local entities have negative impact in terms of Customs revenue forgone. To safeguard Customs revenue, the research recommended that the GoK through its representatives in the Duty remission Committees and EAC Council should ensure that there is no double uptake of both Duty Remissions and Stays of Applications of EACCET by the same entities.

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APPENDICES

Appendix I: List of Commodities imported through Stays of Applications EACCET and Duty Remissions from India and China, 2015-2020

List of Commodities imported through Stays of Applications EACCET Commodities from India and China for the period 2015-2020

i. Motorcycles in Complete Knock Down (CKD) form.
ii. Hot Rolled Round Steel Black Bars Grade EN8D, DIA 16 x 5800MM/ DIA 18 x 5800MM/ DIA 22 x 5800MM/ DIA 24 x 5800MM;
iii. 2 X 20FT FCL Containers S.T.C Super Absorbent Polymer (Raw Material for the Manufacture of Baby Diapers);
iv. 20X20 FCL White Refined Sugar for Industrial Use;
v. Solar Glass-345X460X3.2MM (20W)-8000 PCS;
vi. Woodfree Paper 50 GSM;
vii. White Uncoated Woodfree Writing Paper 50GSM;
viii. Match Wooden Splints (Aspen) White, Splint Size: 40 x 2.0 x 2.0MM;
ix. Unmanufactured India Flue Cured Virginia Tobacco Strips V-0FLDS/V-0FX2RKS/V-0SFDS Semi Processed Tobacco Leaf;
x. 1X40 - Wheel Loader Parts;
xi. Wired Hose;
xii. Lignin-Based Carbon Fiber;
xiii. Generator sets;
xiv. Poker Concrete Vibrator;
xv. 6X40/1X20 Cont Containing 86 Bundles Seamless Steel Pipe 101.6mmx12.5, 114.3mmx12.5mm, 139.7mmx14.2mm, 168mmx14.2mm,6 0mmx3mm;
xvi. Match Wooden Splints (Aspen) White, Splints Size: 40 x 2.0 x 2.0MM;
xvii. Woodfree Paper 50 Gsm, Size-R/WIDTH-101 CM;
xviii. 5X20 Ft Cners Containing 66 Bundles Of Hot Rolled Spring Steel Flat Bar- According To Jisg4801 Sup9a With Rolling Tolerance To DIN59145;
xix. Folding Box Board Gc1 (One Sided Cover Board) Sheets-660X920MM, Substance-250g/M2;
xx. White Refined/Crystal Cane Sugar For Industrial Use Minimum Polarisation 99.8 Degrees;
xxi. 20x20 Ft Containers 1599 Drums Liquid Glucose
xxii. Hot Rolled Angles Marine Grade Bv-A Size Mm 75 X 75 X 8 X 6000 (Goods In Transit For Local Construction Of Two Units Of Cargo Barges For Tanga Port Hs Code 890190.00) Lot 1 Part Shipment Of Idf No.E1803817277;
xxiii. 33kv Main Transformer Switchgear One Set C/W Accessories > C402 Entry Perfection;
xxiv. Paving Machine Parts
xxv. Laboratory Equipment:Electronic Balance
xxvi. 27.215MT of Hot Rolled Spring Steel Flat Bars - Grade:SUP9A {R-T/2} ACC TO JIS G4801 - Size:100x20x5800mm / 100x11x5800mm / 70x10x5800mm - Raw Material for Manufacturing Automobile Leaf Springs
xxvii. Polyethylene Terephthalate Solar Backsheet Width 670mm Thickness 295u Model Number Preserv1-150wd;
xxviii. Scaleboard;
xxix. Foot Bridge Steel;
xxx. Duplex Paper Board (Excel Lwc Grey Back 290gsm) - Licence Part;
xxxi. Solar Toughened (Tempered) Safety Glass (200w) 1000 Pcs;
xxxii. Working Suits;
xxxiii. Tank Seal;
xxxiv. Flanged Level Glass No 20;
xxxv. Wire Nail;
xxxvi. Solar Aluminium Frames-11950 Pcs;
xxxvii. One Side Co-Polyster Coated Bi-Axially Oreinted Polyester Film Thick 12 Micron Width 740mm;
xxxviii. Used Tipper Truck -Model-F3000 -Brand-Shacman - Eng No- 1618k132872 Vin No - Lzgcl2r46jx108856 Cc -9-726. The above list was not exhaustive.
xxxix. One Unit Used Excavator, 1 X 20FT FCL Container (Part) S.T.C Woven Bag for Baby Diapers (Raw Material for the Manufacture of Baby Diapers),

List of Commodities imported through Duty Remissions from India and China for the period 2015-2020

i. Bridges & bridge sections; towers & lattice masts; doors, windows and their frames; and equipment for scaffolding, shuttering, propping or pit propping; road guard rails and other structural steel work
ii. Nails, tacks, drawing pins, corrugated nails, staples and similar articles
iii. Coach screws, wood screws, screw hooks and screw rings
iv. Screws and bolts
v. Nuts of tariff code
vi. Leaf springs and leaves thereof
vii. Stoves, ranges, grates, cookers, barbecues, braziers, gas-rings, plate warmers & similar non-electric domestic appliances
viii. Iron or steel wool, pot scourers and scouring or polishing pads, gloves and similar items
ix. Filing cabinets
x. Wooden furniture
xi. Prefabricated buildings
xii. Coated electrodes of base metal for electric welding
xiii. Ceramic flags and paving, hearth or wall tiles
xiv. Wire of iron or non-alloy steel
xv. Insulated wire, cable and other insulated electric conductors of heading excluding optical fibre cables of tariff 8544.70.00
xvi. Other switches

Conceptual Framework

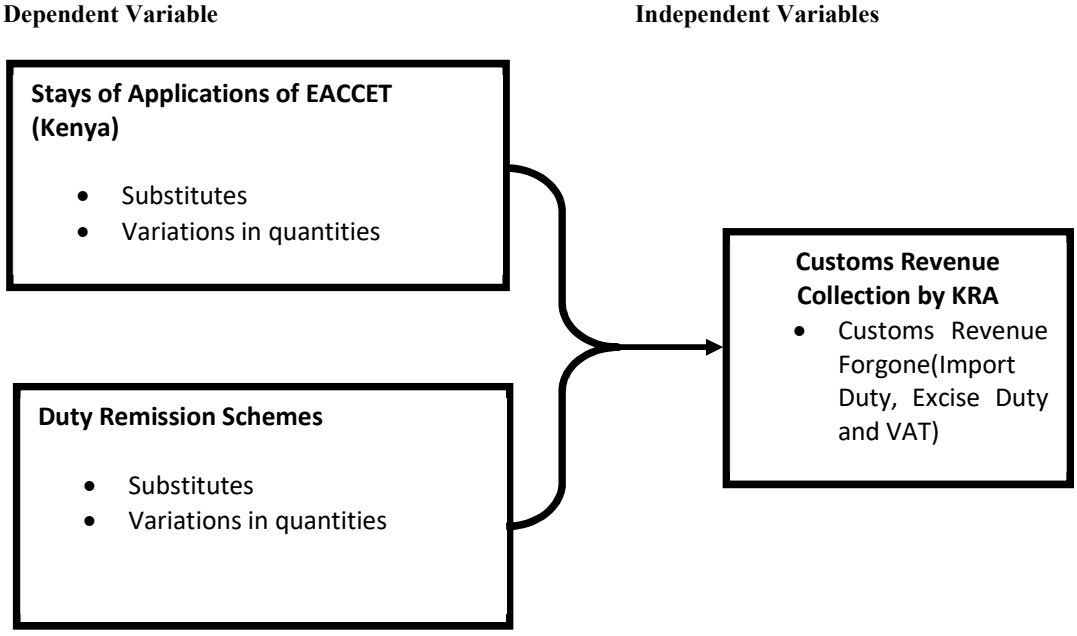

Table 1.2 Descriptive Statistics on Customs revenue collection forgone by KRA based on EAC Stay of Applications of EACCET.

	N	Minimum	Maximum	Mean	Std. Deviation

Customs Revenue Collection Forgone by KRA	12	788,554,799.00	2,347,191,384.00	1,393,374,995.5000	482,705,233.11

Table 1.3 Descriptive Statistics on Customs Revenue Collection Forgone by KRA based on Duty Remission Schemes

	N	Minimum	Maximum	Mean	Std. Deviation
Customs Revenue Collection Forgone by KRA	6	2,608.227,240	12,955,589,952	992,8151,040.83	3,809,947,727.650

Figure 1.1 Standard Deviations of the Customs Revenue Collection Forgone by KRA based on Stay of Application of EACCET and Duty Remission Schemes.

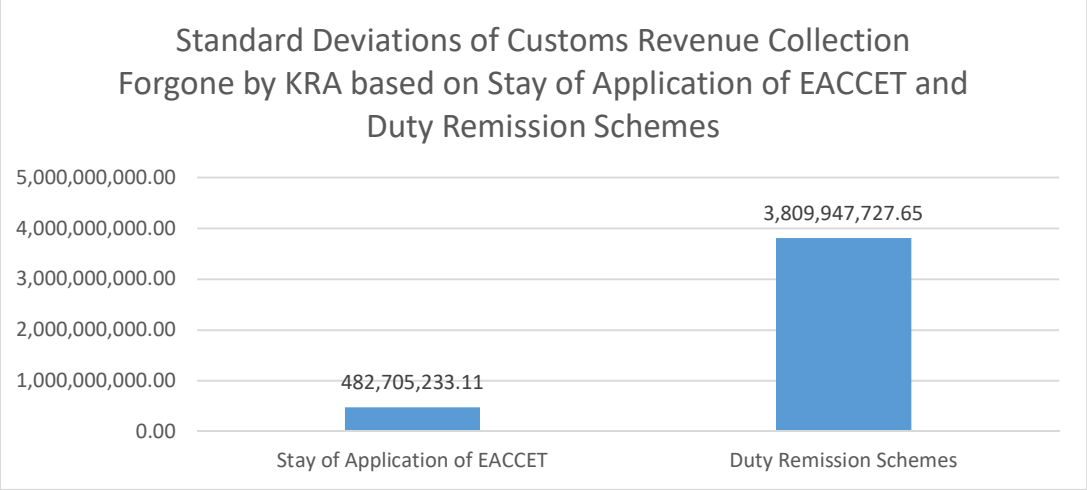

Table 1.4 Correlation Matrix between Customs Revenue collection forgone by KRA and Stay of Applications of EACCET.

		Customs Revenue Collection Forgone by KRA	Stay of Applications of EAC CET
Customs Revenue Collection Forgone by KRA	Pearson Correlation	1	.569
	Sig. (2-tailed)		.050
	N	12	12
Stay of Applications of EAC CET	Pearson Correlation	.569	1
	Sig. (2-tailed)	.050	
	N	12	12

Table 1.5 Correlation Matrix of Customs Revenue Collection Forgone by KRA and Duty Remission Schemes.

		Customs Revenue Collection Forgone by KRA	Duty Remission Schemes
Customs Revenue Collection Forgone by KRA	Pearson Correlation	1	.968
	Sig. (2-tailed)		.002
	N	6	6
Duty Remission Schemes	Pearson Correlation	.968	1
	Sig. (2-tailed)	.002	
	N	6	6

Table 1.6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.569	.324	.257	416212358.12572

a. Predictors: (Constant), Stay of Applications of EACCET

Table 1.7 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	830720492218484990.000	1	830720492218484990.000	4.795	.050
	Residual	1732327270565764860.000	10	173232727056576384.000		
	Total	2563047762784249900.000	11			

a. Dependent Variable: Customs Revenue Collection Forgone by KRA

b. Predictors: (Constant), Stay of Applications of EACCET

Table 1.8 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	868787993.132	267997396.434		3.242	.009
	Stay of Applications of EACCET	14.920	6.813	.569	2.190	.050

Table 1.9 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.968	.937	.921	1068814927.954

Table 2.0 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68009047036275410000.000	1	68009047036275410000.000	59.534	.002

	Residual	4569461400868900900.000	4	1142365350217225220.000
	Total	72578508437144306000.000	5	

Table 2.1 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	-148257073.117	1376912048.461		-.108	.919
	Duty Remission Schemes	43.829	5.680	.968	7.716	.002