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THE EFFECTS OF TAX POLICY REFORMS ON TAX REVENUE IN KENYA

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Abstract

Taxation provides principal lenses in measuring state capacity, state formation and power relations in a whole society at large. In the evaluation of tax reforms in the developing countries, it is important to first determine the unique role of the tax system in each particular country. The main reason for undertaking tax reforms in Kenya was to address issues of inequality and to create a sustainable tax system that could generate adequate revenue to finance public expenditures. In this respect, the tax modernization programme was introduced in the country for achievement of a tax system that was sustainable in the face of changing conditions locally and internationally. Policies were shifted towards more reliance on the indirect taxes as opposed to the direct taxes. Consumption taxes were seen to be more favourable to investments and therefore growth. Trade taxes, instead of being used for protection or revenue-maximization purposes, were seen to be more as instruments of fostering export-led industrialization. Trade taxes were therefore used to create a competitive exports sector rather than protect the import-competing manufacturing sector, as had been in the past. This study examined the reform efforts of the country with respect to revenue generated, and reviewed the strengths and weakness of the tax system as it has evolved over the years from 2003/2004 to 2012/2013. The general objective was to evaluate the effects of Tax Policy Reforms on Tax Revenue in Kenya while the specific objectives of the research study were to establish the relationship between domestic taxes policy reforms and tax revenue in Kenya and to determine the effects of customs policy reforms on tax revenue in Kenya. The methodology used was a correlational study design. Correlation research as a form of analysis correlated one variable with another to determine if there is a relationship between them. From the results regression model of Total tax revenue on, Domestic Taxes and Customs showed that all the coefficients of the model were positive and significant at 5% level of significance. Therefore, Total tax revenue can be predicted using Domestic Taxes and Customs Duty.

Key Words: Taxation, State Capacity, Power Relations, Society

INTRODUCTION

Tax reform is the process of changing the way taxes are collected or managed by the government which may involve the adoption of a Value Added Tax (VAT), the expansion of the VAT, the elimination of stamp and other minor duties, the simplification and broadening of corporate income or personal or asset taxes, or the revision of the tax code to enact comprehensive administration and criminal penalties for evasion (Mahon, 1997).

In Kenya, taxation is the single largest source of government budgetary resources. Between 1995 and 2004, tax revenue constituted 80.4% of total government revenue (including grants). Relatively, the importance of non-tax revenue is also significant in sustaining the public budget, although its importance is much less than the role of taxation given that it's share over the same period was 15.1%. Foreign grants play a minimal role as they have averaged only 4.5%. Given its central role, taxation has been applied to meet two objectives. First, taxation is used to raise sufficient revenue to fund public spending without recourse to excessive public sector borrowing. Second, it is used to mobilize revenue in ways that are equitable and that minimize its disincentive effects on economic activities (Glenday, 2002).

Statement of the Problem

Mumo, (2013) in his article, "the Taxman allays fears on new VAT regime" in the Daily Nation observed that the taxman has dismissed concerns that the new VAT law will hinder economic growth and called for all future tax policies to be based purely on research.

Taxation is the key source of revenue that the government of Kenya uses to provide public services to its citizens. Due to its importance, tax policy debates and decision making becomes a critical issue to the public, businesses and the general economy owing to the varied impact that it will have on each of these entities. The passing of the new Constitution of Kenya in 2010 reflects a two tier system of government comprising the national and 47 county governments with the national government retaining the powers to impose taxes both direct taxes and indirect taxes. On the other hand the county governments' powers to impose tax will be confined to entertainment taxes, property taxes, and other taxes that are feasible at their jurisdiction. Of the total tax revenue collected by the government over the last 10 years, the largest contributors are income tax, followed by VAT (domestic taxes). However it is important to note that the burden on income tax and in particular PAYE is felt by a small percentage of the total productive labour force raising fairness concerns despite income tax being the most progressive tax. Unlike personal income tax that follows a graduated rate structure; corporate income tax is charged on profits from registered business entities at a flat rate. However a number of businesses especially in the informal sector are not taxed again raising equity questions. The tax structure in Kenya is skewed heavily towards income taxes and VAT as the two largest source of total tax revenue (Mutua, 2012).

Given the destabilizing effects of the budget deficits and the fact that they were becoming unsustainable, the Kenya

Government came up with measures to address this problem the most notable fiscal policy proposals adopted being the Tax Modernization Programme (TMP) and the Budget Rationalization Programme (Muriithi and Moyi, 2003).

In spite of these efforts by the Government of Kenya there are still a myriad of problems militating against effective and efficient tax system in Kenya and hence affecting the tax revenue collected by the Kenya government. It is therefore against this background that the researcher examined the whole spectrum of tax policy reforms in Kenya thereby analysing the effects of the policy reforms on tax revenue in Kenya.

1.3 Objectives of the study

1.3.1 General Objective

The key objective was to evaluate the effect of Tax Policy Reforms on Tax Revenue in Kenya. The specific objectives of the research study were; to establish the relationship between domestic taxes policy reforms and tax revenue in Kenya and to determine the effect of customs policy reforms on tax revenue in Kenya

Research Hypothesis

Ho 1: There is no significant relationship between domestic taxes policy reforms and tax revenue in Kenya

Ho 2: There is no significant relationship between customs policy reforms on tax revenue in Kenya

Scope of the Study

This study focused on the evaluation of the effects of tax policy reforms on tax revenue in Kenya. Specifically, the study concentrated on the period from 2003/2004 to 2012/2013 for a number of reasons: This period was long enough to capture both the pure and total responsiveness of tax revenues to tax policy reforms. It was also within this period that Kenya witnessed political as well as a lot of economic changes.

LITERATURE REVIEW

Kenya Revenue Authority

The Kenya Revenue Authority was established by an Act of Parliament on July 1, 1995 under Cap. 469 of the laws of Kenya, for the purpose of enhancing the mobilisation of Government revenue, while providing enhance tax administration and sustainability in revenue collection. The Board together with Management of KRA has since its inception spent time and resources setting up systems, procedures and adopting of new strategies aimed at enhancing the operational efficiency of the Authority's processes. In particular, the functions of the Authority are: To assess, collect and account for all revenues in accordance with the written laws and the specified provisions of the written laws, to advise on matters relating to the administration of, and collection of revenue under the written laws or the specified provisions of the written laws, and to perform such other functions in relation to revenue as the Minster may direct.

In order to realise its mandates, the Authority administers the fourteen written laws relating to revenue. These written laws administered by the Authority therefore legally constitute the functional departments and sections of Kenya Revenue Authority, which include: - Income Tax

Department, Customs & Excise Department, Value Added Tax Department, Registrar of Motor Vehicle Department and Kenya Revenue Authority Headquarters (support) Departments. (KRA, 2012)

Tax Reforms

Tax reform is the process of changing the way taxes are collected or managed by the government. It may involve the adoption of a Value Added Tax (VAT), the expansion of the VAT, the elimination of stamp and other minor duties, the simplification and broadening of personal or corporate income or asset taxes, or the revision of the tax code to enact comprehensive administration and criminal penalties for evasion. (Mahon, 1997)

Tax policy is an administrative apparatus that is built to levy and collect taxes, through application of different tariffs and basis of taxation. Tax policy reform is the process of changing the way the taxes are collected or managed by a government. Tax reformers have different goals, while some seek to reduce the level of taxation of all people by the government, others seek to make the tax system either more progressive or less progressive. Whereas tax policy reforms commenced in 1986, administrative reforms were initiated in 1995 when KRA was established to strengthen revenue collection and harmonize the separate tax collection arms. The overall objective was to provide operational autonomy in revenue administration and enable its evolution into a modern, effective, flexible and integrated revenue collection agency. Since the inception of KRA, revenue collection has continued to grow while professionalism in revenue administration has been enhanced. However, challenges inhibiting the achievement of a fully integrated and modern tax administration remain. (KRA, 2012)

The KRA Second Corporate Plan (2003/04 – 2005/06) set the stage for the Revenue Administration Reform and Modernization Programme (RARMP) to ensure that momentum was injected to consolidate the gains that had been made in tax administration. During the Third Corporate Plan Period (2006/07 – 2008/09), the RARMP made enormous strides in ensuring that KRA transformed itself into an ultra-modern, fully integrated and client-focused organization. (KRA, 2012)

KRA also implemented the Fourth Corporate Plan (2009/10 – 2011/12). The aim was to entrench the reforms at the operational levels to achieve operational efficiencies and enhance service delivery. The achievements so far have largely been credited through the implementation of the following key projects; Customs Reforms & Modernisation Project, Domestic Taxes Reform & Modernization Project, Business Automation Project, Human Resources and Revitalisation Project and Infrastructure Development Project. However, other reform initiatives touching on other critical functions including the Internal Audit and revenue collection payments are being implemented (KRA, 2012).

The tax base in Kenya, as in most sub-Saharan African countries, is extremely narrow. So far, attempts to increase tax revenue have focused on closing the ‘taxation gap’ and expanding the tax base. The main policies recommended by the IMF have led to trade liberalisation, the transition from a sales tax to a system of VAT, and the creation of the Kenya Revenue Authority. These policies have had mixed results. The reduction in tariffs has been successful, as increased imports have so far more than compensated for the reduction in tariffs and resulted in an increase in trade tax revenue. However, the impact of domestic tax reforms has been less impressive. Most importantly, revenue collected from VAT and direct taxation has not increased as hoped. Neither the switch to VAT, nor the creation of the KRA has significantly altered the proportion of government revenue made up by domestic taxation. (Cheeseman and Griffiths, 2005)

Domestic Taxes Policy Reform

This reforms sot to create a fully integrated and modern domestic tax administration with the key objectives of integrating domestic revenue administration; developing a wholistic approach to taxpayer services thereby providing a single view of the taxpayer; reducing the administrative and compliance costs; improving services through taxpayer segmentation; enhancing taxpayer compliance and broadening the tax base. These objectives were achieved through implementation of the following reforms: Merger of Income Tax and VAT to form Domestic Taxes Department (DTD) in July 2004. In July 2005, DTD took over the administration of Domestic Excise from Customs & Excise Department, Segmentation of taxpayers to address their unique needs by creating the Large Taxpayer Office (LTO) to cater for large taxpayers and the Medium Taxpayer Office (MTO) for medium sized taxpayers, Widening the tax net by introducing Turnover Tax (TOT) for small taxpayers and particularly those in the informal sector, Enhancing taxpayer compliance through introduction of Withholding VAT system in October 2003 and Electronic Tax Register (ETR) system in July 2005, Development and implementation of a web based Integrated Tax Management System (ITMS) to provide various tax services online. e-tax registration and e-tax filing modules were rolled out as well as Provision of online facilities for verification of Personal Identification Number (PIN) and Tax Compliance Certificate (TCC) at the KRA website to enable taxpayers and the public to verify authenticity. (KRA, 2012)

Customs Policy Reforms

The customs policy reforms aim at transforming and modernising Customs administration in accordance with internationally accepted conventional standards and best practices. This also involved embracing the redefined function of Customs to lay greater emphasis on trade facilitation and protection of society. This was achieved through implementation of the following reform initiatives: a web based Simba 2005 System and its subsidiary systems, i.e. Cargo Management Information System (CAMIS) and Customs Oil Stocks Information System (COSIS), a 24 hour Document Procession Processing Centre (DPC) for processing documents to replace the long-room concept, Embracing Risk Management practices, Enhancing cargo clearance by implementation of an electronic document exchange platform (ORBUS) and expansion of the Authorized Economic Operator (AEO) programme, Enhancing uniformity in commodity valuation by implementation of a Valuation

Database, Strengthening enforcement by adopting the EAC recommended forms including Single Administrative Document (C17B); enhancing Post Clearance Audit (PCA); automating Air Passenger Service Charge (APSC); implementation of One Stop Border Posts (OSBP); implementation of Electronic Cargo Tracking System (ECTS); and adoption of X-Ray Cargo Scanners, Sniffer Dogs (K9 Unit) and Patrol Boats, and Capacity Building in various Customs operational areas. (KRA 2012)

Kenya's customs taxes underwent significant changes during the reform period in the direction of restricting exemptions on duty, encouraging exports, reforming the tariff structure and strengthening the administration of customs duties. Broadly, these reforms were aimed at encouraging a free market atmosphere and therefore increasing the level of foreign direct investment in Kenya. During the period 1987 to 1998, the top tariff rate was reduced systematically from 170% to 25%, while the rate bands were reduced from 24 to 5. As a result of the changes, the simple average rate fell from 40% to 16%. (KIPPRA, 2005)

Before 1991, the exemption system had been rather generous, and several measures were implemented to restrict the generosity. Such restrictive policies included the reduction in the range of exempt goods, making imports by all parastatals tax deductible, abolishing discretionary exemptions (in 1992) and eliminating exemptions on agricultural commodity aid (except during cases of a national disaster or refugee support) in 1995. The reforms during the period 1994 to 1998 also targeted the non-government organization (NGO) sector by imposing restrictions on NGO exemptions, introducing the bonding of major project aid-funded imports and initiating post project reconciliation. Similarly, NGOs and other relief organizations were required to register for purposes of income tax in order to qualify for exemption. (Nyamunga, J. 2004a)

In order to achieve these reforms, the administrative capacity of the tax system had to be strengthened. (Taliercio, R. 2004) The measures undertaken towards this end include the re-introduction of the selective examination/rapid release system and the re-establishment of the intelligence and investigation functions. Others were the strengthening of the transit controls system, revising the pre-shipment inspection programme (from 1994), implementing limited "modularized" computerization on selected functions, introducing warehouse controls and strengthening cargo control at Mombasa port (from 1996).

Economic Conditions

According to Richard A. et al, Changes in economic conditions are expected to modify forecasting assumptions in various ways. For instance, changes in the foreign trade sector as a share of the total production in the economy affect the taxable capacity of a country. This is especially true in the case of a developing country, in which trade taxes constitute a significant proportion of tax revenues. Similarly, the deregulation of certain sectors of the economy should automatically change the structure of the relevant markets for goods and services, and such changes will consequently affect the size of the tax bases. Devaluation of the domestic currency will also affect the quantities of imports and exports, which in turn will affect the trade tax revenues from import duties. Changes in the economic conditions of major trading partners will also have a significant impact on the domestic economy and on tax revenues.

Tax Revenue in Kenya

Tax revenue refers to compulsory transfers to the central government for public purpose with certain compulsory transfers such as fines, penalties, and most social security contributions being excluded. The refunds and corrections of erroneously collected tax revenue are treated as negative revenue.

According to Barnett and Grown (2004), tax policy is at the heart of the political debate on the level of public services that should be provided and who should pay for them because taxes are the principal source of recurring revenue under government control and besides, taxes are used to assist in the redistribution of wealth and incomes and to regulate economic activities.

Tax is a central but neglected element of development policy. The structure and administration of taxation are frequently omitted from discussion and research agenda. Questions of a primarily redistributive nature may be deemed political, and so unsuitable for neutral economic analysis, and moreover as questions to be resolved by the democratic process in individual countries. On the other hand, many questions are posed in terms of system reform and these may instead be considered as purely 'technical' – matters of economic and bureaucratic efficiency to be settled by experts. (Martinez-Vazques, 2001)

It is important to note that tax structure in Kenya is skewed heavily towards income taxes and Value Added Taxes (VAT) as the two largest source of total tax revenue. For example, for the period 2005/06 - 2011/12 income tax accounted for 36.3% of total government revenue (total taxes plus appropriation-in-aid).VAT comes in second, averaging over 25% in the same period, followed by excise duty with import duty and other taxes (for example, stamp duty) accounting for more or less similar proportions. (Mutua, 2012)

Theoretical Review

a) Wagner's Law of Increasing State Activity

The Law of increasing State activity was introduced by Adolf Wagner a nineteen century German economist to explain the growth of the share of public expenditure in Gross National Product (GNP). He divided government expenditures into three categories namely; administration and defense, cultural and welfare, and provision of direct services by government in case of market failure. It is well known that rather than allow for monopoly to emerge, government usually creates Statutory Corporations such as NITEL, Post Office, and Water Boards etc, to cater for the welfare of the people. Wagner's Law states that as per- capita income increase, the relative size of the public sector will grow.

According to Wagner as the economy becomes industrialized, population tends to concentrate in the urban areas. This in turn leads to externalities (market failure) and congestion which require government intervention and regulations. Legal authorities and the police emerge to address problems of law and order, peace and security. Banking services by the State arise to link surplus funds with those who have the investment opportunities. The increase of public expenditures on recreation, education, health, and welfare services is explained in terms of the high population in the urban centers. Wagner argued that as real income increases, public expenditure on education, recreation, health etc would increase more than the increase in real income. This explains the increasing ratio of government expenditure to gross national product.

Wagner’s theory of increasing State activity has many defects. First, it is not a well articulated theory of public wants; rather it is an organic theory of the State where the State behaves as if it were an individual and takes decisions independent of members of the society. Secondly, the predictive power of the theory is very much doubtful. It is not always true that as par-capita income grows, the share of public expenditure in GNP increases. The share of public expenditure may actually decrease as the economy grows particularly when the private sector is strong and dynamic.

b) Peacock Wiseman Theory of Public Expenditure

Allan Peacock and Jack Wiseman theory (PWT), was based on the political theory of public expenditure determination which states that government likes to spend more money, citizens do not like to pay more taxes, and that government needs to pay some attention to the aspiration and wishes of their people.

PWT attempted to explain the circular trend or time pattern of change in government expenditure in response to development in the political economy while the taxable capacity of the electorate acts as a constraint. Their theory is known as the Displacement Hypothesis and is based on the experience of Great Britain. Displacement hypothesis states that government expenditure grows in step wise fashion.

During periods of catastrophes or wars, government expenditure grew rapidly in Great Britain and remained constant during the war, famine, or disaster otherwise catastrophic period. They also argued that government expenditures are largely determined by government revenue or taxation, PWT maintains that as the economy and income grew, tax revenue would raise thereby enabling government expenditures to rise in line with GNP. The acceptance of the existence of tolerable level of taxation which acts as a constraint on government behaviour is consistent with Clark’s “Catastrophe School” of taxation. PWT make a destination in government expenditure growth between normal or peak time and war, crisis or social upheaval period.

According to PWT, during peak, public expenditures would tend to experience an upward trend, even though there may be some discrepancies between a desirable level of government expenditure and a desirable level of taxation. During war, famine or social upheaval this normal and steady growth in government expenditures, would be interrupted. This is as a result of the displacement hypothesis as unproductive government spending during social upheavals displaced productive government expenditure leading to rapid increase in public expenditure.

Government imposes higher taxes which are regarded as acceptable during period of crisis. During this period, public expenditure is displaced upward (i.e. displacement effect). War-related expenditure displaces private and other government expenditures. However after the wars or crisis, aggregate public expenditures does not fall back to its original level since a war is not fully paid for from taxation alone. Inspection effect may also occur as government attempts to increase expenditures to improve social conditions which have deteriorated during the period of the crisis. Government finances the high expenditure from the increase and tolerable level of taxation that does not return to its former level. There are two possible scenarios which may occur after the war or social upheaval. First, total private expenditures may return to its original growth path and second, government expenditures experienced during the war may continue in the post-war period along with an increase in civilian government expenditures until the desired growth is reached (Baghebo M. 2012).

Empirical review

Gachanja (2012), in his research on The effect of tax reforms and economic factors on tax revenues in Kenya observed that Kenya introduced the tax modernisation programme in 1986 with the hope that this would, among other things, enhance revenue collection. The objective of this study was to establish the effect of tax reforms and economic factors on tax revenues in Kenya.

A correlational study design was selected. Secondary data was collected for a ten year period (2000-2009) from various sources included the Central Bank of Kenya website, the Kenya National Bureau of Statistics, Transparency International website and the World Bank website. Trend analysis was used to graphically present some of the trends in the data. With the aid of SPSS, a multivariate analysis was employed with the OLS regression being used. The dependent variable was tax revenues while the independent variables were tax reforms (measured as a dummy variable).

The regression model was controlled for corruption (measured by the corruption perception index). The trend analyses revealed that there corruption index in Kenya had been improving since 2000 while tax revenues had been rising over the period. The OLS regression revealed that the independent variables accounted for 91.6% of the variance in tax revenues. Reforms were negatively and significantly correlated with tax revenues, which had a positive and significant influence on tax revenues, while corruption had a positive but insignificant impact on tax revenues. The study concludes that tax reforms have negatively contributed to tax revenues in Kenya while economic conditions (GOP) have positively impacted on revenues. The effect of tax reforms is therefore counter-intuitive. The study recommends that the Kenya Revenue Authority relook into the issue of reforms and modernization programs to check on whether some of the reforms they have instituted lead to better revenue collections.

The study also recommends that reforms and measures need to be carried out in all sectors of the economy to spur economic growth and therefore improving the tax revenues. Future studies should also perform the normality of distribution tests to determine which type of multivariate analysis to be carried out. Other tests to check whether the conditions for parametric analysis as well as for OLS regression analysis are met can be performed.

Okech and Mburu (2011), in their research 'Analysis of responsiveness of tax revenue to changes in national income in Kenya 1986-2009', observed over the years, the Kenyan government had continued to experience budget deficit. This had been partly attributed to the inability of the tax system to generate sufficient revenue to finance public expenditure. Inadequacy of tax revenue to finance public expenditure had largely been attributed to lack of responsiveness of tax revenue to changes in national income.

Conceptual Framework

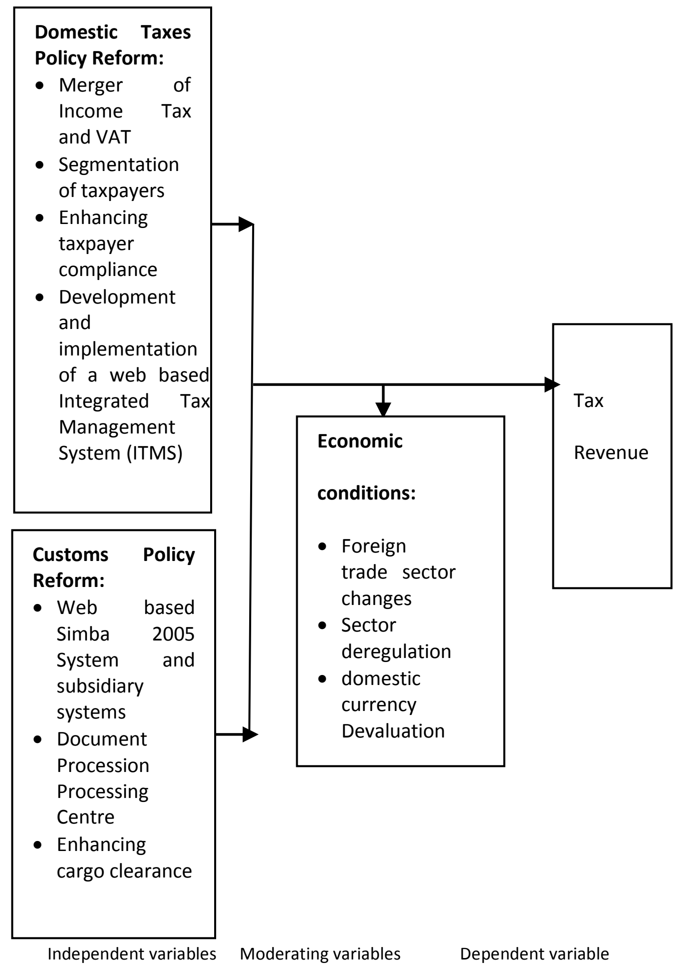

Figure 1. Conceptual framework

RESEARCH METHODOLOGY

Research Design

A correlational study design was used. This design was adopted by Gachanja (2012) in his research on the effect of tax reforms and economic factors on tax revenues in Kenya. Correlation research is a form of analysis in which you correlate one variable with another to determine if there is a relationship between them. The correlational model looked at the tax policy reforms measurement scale, consisting of four-dimensional structures namely income tax policy reforms, VAT policy reforms, custom duty policy reforms, and tax administration policy reforms.

Data Collection

Secondary data was collected for a ten year period from 2003/2004 to 2012/2013. This data was collected from historical records as provided by Kenya Revenue Authority.

3.4 Data Analysis

The researcher developed a set of hypotheses surrounding mediating variables i.e. economic conditions and price changes. The researcher then examined the effect of these variables by exploring the correlation between the dependent variable (tax revenue) and the independent variables (tax policy reforms) and then finally evaluated the effect of the variables on tax revenue. Trend analysis was used to graphically present some of the trends in the data. With the aid of SPSS, a multivariate analysis was employed with the OLS regression being used where the dependent variable was the tax revenues while the independent variables were the tax policy reforms.

The model used is as shown below:

TR = α + b1DT + b2CD + E

Where:

TR = Tax Revenue

α = Constant

DT = Domestic Taxes

CD = Customs

E = Error

The study sought to test the following null hypothesis:

H0: There is no significant relationship between tax policy reforms and tax revenue in Kenya.

Measurement of the Variables

The variables were measured as follows: domestic taxes policy reforms were measured by using the rate of change between target revenue to actual revenue in the period 2003/2004 to 2012/2013.Customs policy reforms were measured using the percentage target revenue to actual revenue on imports over the period 2003/2004 to 2012/2013.

FINDINGS AND DISCUSSION

Correlations among the variables

KMO is a measure to quantify the degree of correlations among the variables. This index ranges from 0 to 1. The closer the value to 1, the more significant the correlations among the variables. Bartlett test of sphericity provides the statistical probability that the correlation matrix has significant correlations among at least some of the variables. By conducting these tests, the result of KMO test is.744 and the significance level for Bartlett test is p <.001, both suggesting a high degree of correlations among the independent variables. It is hence concluded that the variables under the study were significantly correlated.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.744
Bartlett's Test of Sphericity	Approx. Chi-Square	2.601E3
	df	9

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Bartlett's Test of Sphericity	Approx. Chi-Square	2.601E3
	df	9
	Sig.	.000

Descriptive Statistics

Secondary data for 2003/2004 to 2012/2013 from KRA corporate plans was used in this study. The table below displays the descriptive statistics for each of the variables used. Actual total revenue had a minimum of Ksh. 201763 millions with a maximum of Ksh. 870100 millions and an average of Ksh. 472000 millions with a standard deviation of Ksh. 203766.4495 millions.

Table 2. Descriptive Statistics (values in millions Kenya shillings)

	N	Minimum	Maximum	Mean	Std. Deviation
Actual Total tax revenue	10	201763.0	870100.0	4.720E5	203766.4495
Target Total tax revenue	10	208083	956300	4.86E5	224340.305
Actual Domestic Taxes	10	97948.0	543450.0	2.945E5	134121.1064
Target Domestic Taxes	10	98848	5450020	7.88E5	1641414.280
Actual Custom	10	90630	328800	1.74E5	73234.777
Target Customs	10	99424	3278820	5.62E5	989905.518

For further analysis ratio of the target revenue to actual revenue was calculated and results displayed in the table below.

Table 1: Descriptive Statistics for ratio of target revenue to actual revenue

	N	Minimum	Maximum	Mean	Std. Deviation
Total tax revenue	10	.98	1.10	1.0236	.03272
Domestic Taxes	10	.96	10.03	1.9123	2.85188
Customs Duty	10	.99	10.77	2.8925	3.94516

To measure existence of linear relationship between the dependent (Actual total revenue) variable and each of the independent variables, graphical approach was employed.

Figure 2. Shows that there is a linear relationship between Actual TR to Actual DT.

Figure 2: Scatter plot of Actual TE to Actual DT

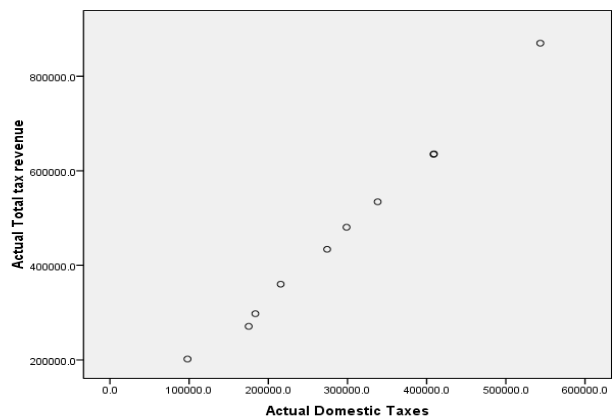


Figure 3 shows that there is a linear relationship between Actual TR to Actual CD.

Figure 3: Scatter plot of Actual TR to Actual CD

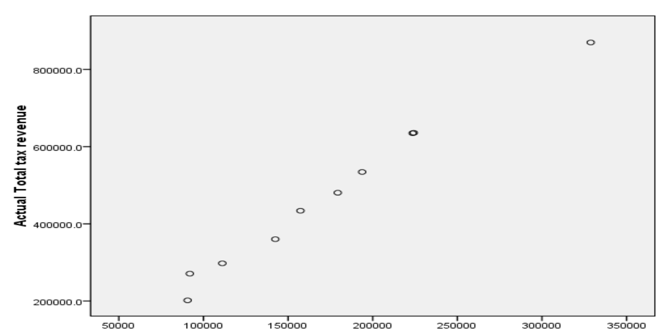


Table 4: Correlations for Actual Tax Revenue

		Actual Total Revenue	Actual Domestic Tax	Actual Customs
Actual Total Revenue	Pearson Correlation	1	.997**	.993**
	Sig. (2-tailed)		.000	.000
	N	10	10	10

On the other hand Pearson Correlation was used to establish the significance of the linear relationship between the dependent variable (Target total revenue/Actual total revenue) and each of the independent variables. There was significant positive linear relationship between the dependant variable and Domestic Taxes and Customs.

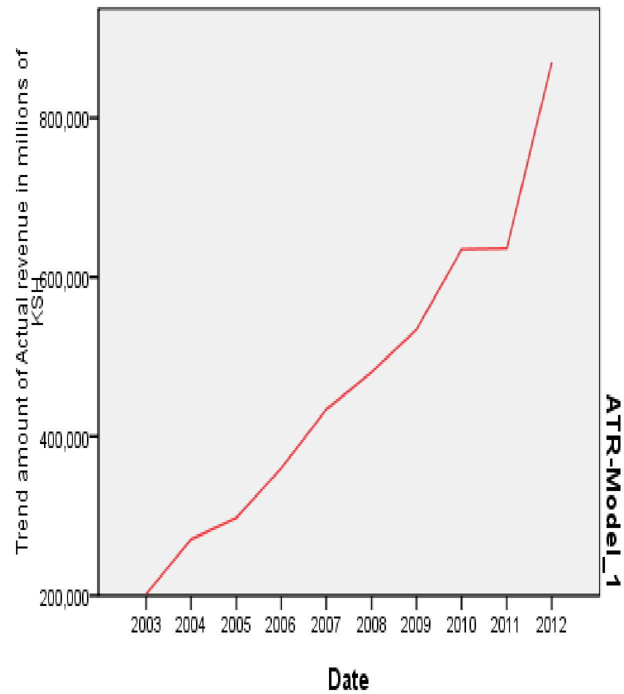
Table 2: Correlations for ratio of target to actual tax revenue

		Total tax revenue	Domestic Taxes	Customs
Total tax revenue	Pearson Correlation	1	.815**	.682*
	Sig. (2-tailed)		.004	.030
	N	10	10	10

Time series

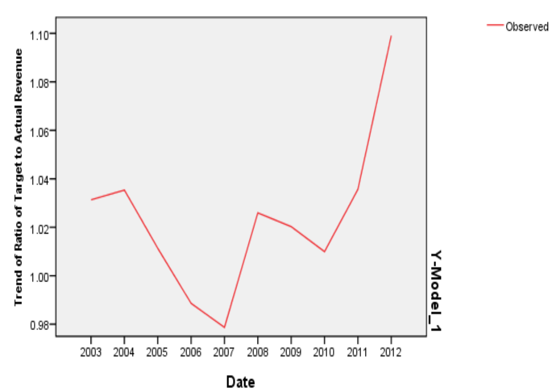
From the figure 5 we can say that the revenue collected grows over the years with year 2011/2012 to 2012/2013 revenue growing much more than in the previous years. This time series is not stationary (which can be detected by the seasonal difference of the time series).

Figure 6: Trend analysis of Actual Revenue



From the figure 6 we can say that the ratio of target revenue to actual revenue drops from year 2003/2004 to 2007/2008 and from 2008/2009 to 2010/2011 and rises in the other years. This time series is not stationary (which can be detected by the seasonal difference of the time series).

Figure 7: Trend analysis of Ratio of Target to Actual Revenue



Regression Analysis

Testing Assumptions of Regression Model

Kolmogorov-Smirnov test was used to investigate whether the data exhibit the standard normal "bell curve" or Gaussian distribution. From **Error! Reference source not found.** 4.6 the p-value for all the variables are greater than the conventional 5% hence we can safely assume that our process data is normally distributed.

Table 3: One-Sample Kolmogorov-Smirnov Test

	Total tax revenue	Domestic Taxes	Customs
N	10	10	10
Kolmogorov-Smirnov Z	.811	.645	.504
Asymp. Sig. (2-tailed)	.526	.790	.220

The size of Durbin Watson statistic which depends on the number of predictors and number of observation, as conservative rule of thumb, values less than 1 or greater than 3 are definitely cause for concern. In this case the value of Durbin Watson was above 1.5 (1.637) indicating that there was no serious problem of autocorrelation.

In order to detect whether multicollinearity was a problem to the model, condition index; the variance-inflation factor (VIF); and tolerance of each variable was calculated. VIF values are considered a problem when they go beyond 10, and tolerance values below.10 should be a cause for concern. A condition index over 30 suggests serious collinearity problems and an index over 15 indicates possible collinearity problems. The data were duly tested for multicollinearity by using Pearson's correlation and conditional index.

An R^2 value of .730 indicates that 73.0% of the variation in Total tax revenue can be explained by the model. Hence, Domestic Taxes and Customs reforms can explain 73.0% of the variation in Total tax revenue while other factors can explain 27.0%

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.854[a]	.730	.595	.02083	1.637

a. Predictors: (Constant),Domestic Taxes , Customs

b. Dependent Variable: Total tax revenue

To determine how best the regression model fits the data, Analysis of Variance on the coefficient of determination (R^2) was calculated. An F value of 15.401 (df=3, 6 and P=.039) shows that the model is suitable at 95% confidence level.

Table 5: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.007	3	.002	5.401	.039[a]
	Residual	.003	6	.000		
	Total	.010	9			

a. Predictors: (Constant), Domestic Taxes, Customs

b. Dependent Variable: Total tax revenue

Table 9 displays the coefficient of the regression model of Total tax revenue on Domestic Taxes and Customs. From the table all the coefficients of the model were significant at 5% level of significance. Therefore, Total tax revenue can be predicted using Domestic Taxes and Customs in the following equation:

$Y=.972+.08X1+.03X2$

Where;

Y is Total tax revenue

X1 is the Domestic Taxes

X2 is the Customs

Table 6: Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B		Collinearity Statistics	
Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	.972	.047		20.566	.000	.856	1.088		
Domestic Taxes	.08	.003	.659	4.388	.005	.000	.015	.592	1.689
Customs	.03	.002	.322	3.142	.020	-.003	.008	.565	1.771

a. Dependent Variable: Total tax revenue

SUMMARY OF FINDING

This study was aimed at evaluating the effects of Tax Policy Reforms on Tax Revenue in Kenya. It was guided by Two specific objectives; to establish the relationship between domestic taxes policy reforms and tax revenue in Kenya and to determine the effect of customs policy reforms on tax revenue in Kenya.

The canonical focus for tax reform is to create a system with a broad base that taxes all sources and uses of revenue. Broadening the base entails restricting the use of exclusions and deductions. Taxing all sources and uses of income, at the same effective rate, entails restricting the use of preferential rates, credits, and deferrals. In short, tax reform has the potential to raise revenue and to make the tax system fairer, more efficient and simpler. The results of this study have revealed evidence in significant increase in total tax revenue attributed to tax reforms in Kenya.

Conclusion

Tax reforms sources for economic development is very important if Kenya must rank among equals in the improvement of the lives of her citizens. Results of this study have revealed evidence in significant increase in total tax revenue attributed to tax reforms in Kenya. Therefore, to build and maintain the culture of sustainable development, there is urgent need for a review and restructure of the nation's tax policy and administrative system. Why government takes step to address the perennial annual budget deficits and tax gap, the citizens should wake up to their civic responsibilities in terms of tax compliance.

Unless the citizens work in hand with the government, every effort of the later to better their lives may prove abortive. Inequitable tax which is one of the major problems in taxation was promoted by the actions of those in the informal sector. However, government should note that it is not possible to tax a nation into prosperity. High tax rates will not only increase evasion but will equally discourage investment. This is the case of fiscal neutrality. Economic decisions may be influenced due to high tax rates and that may impact negatively on the nation's economy. (Bowles 1999) cited in Richardson 2006, posit that the higher the marginal tax rate, the higher the likelihood of evasion. In this era of globalization, unfriendly tax policies may create room for capital flight from Kenya to other countries with more relaxed tax policies. The move towards borderless world has opened up new opportunities for taxpayers to minimise their tax liabilities (Owens 2006).

Recommendations

In order to encourage voluntary compliance, tax policy formulation should be after due consultation with all the stakeholders. The gap between the citizens and the government is so wide that policies are made and forced down on the people without due consultation. For there to be a good tax administration, tax policies must be welcomed by all the citizens. Besides, the involvement of all stakeholders may further foster the sincerity of the government thereby reducing the problem of trust which had bedeviled tax administration. This calls for public private partnership in decision making process for good governance.

Just like every other profit oriented businesses, the structure of tax administration should be "customer oriented". Measures to assessing customer's satisfaction, employee's satisfaction and business oriented results should be put in place. This however does not mean that the objective of taxation should be undermined. Satisfactory services to the taxpayers could encourage voluntary compliance. Tax refund where necessary should be encouraged for the benefit of those who comply voluntarily. There is the need for management and organisational approach that emphasises services, support and information for the honest tax payers.

Suggestions for Future Research

Composite datasets which include all taxable services often make unbiased results. Thus, while the results show a high degree of confidence in the relationship between tax reforms and revenue, it does so relative to three categories of revenues put together, not one individual taxable service or even like services. A better understanding of specific effects would require studying those taxable services individually.

Lastly, the implementation of certain policies that deviate dramatically from their predecessors often force administrative bodies to shift their attention quickly and often haphazardly, which creates organizational instability and effectively puts an administration at a logistical disadvantage from the word —go. It would be extremely intriguing to determine the profile of a tax administrative body that is able to adjust methodically and smoothly to tax policy shocks.

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