THE EFFECT OF TAX REFORMS AND ECONOMIC FACTORS ON TAX REVENUES IN KENYA

BY

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DECLARATION

1. the undersigned, declare that this is m\ original work and has not been submitted to any other college, institution or university for examination.

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This management research project has been submitted for examination with my approval as university supervisor.

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Dedication

To my mother, your prayers and sacrifice towards my education and good parental guidance has made me who I am today.

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ABBREVIATIONS

ANOVA	Analysis of Variance
COMESA	Common Market for Eastern and Southern Africa
COS1S	Customs Oil Stocks Information System
CRM	Customs Reforms and Modernisation
DPC	Document Processing Centre
ERS	Economic Recovery Strategy
ETR	Electronic Tax Register
GDP	Gross Domestic Product
ICT	Information Communication Technology
IMF	International Monetary Fund
ITMS	Integrated Tax Management System
KRA	Kenya Revenue Authority
LTO	Large Taxpayers Office
MTO	Medium Taxpayers Office
SPSS	Statistical Package for Social Sciences
TOT	Turnover Tax
VAT	Value Added Tax

ABSTRACT

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 stud\ 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) and GDP. 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 and GDP had also 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, GDP 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 (GDP) 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. This way, the results would be more reliable.

CHAPTER ONE

INTRODUCTION

1.1   Background of the Study

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 (Moyi and Ronge. 2006).

1.1.1   Factors Affecting Tax Revenues

Tax revenue may be affected by various factors. One of the factors is corruption. Imam and Jacobs (2007) estimated the impact of corruption on the revenue-generating capacity of different tax categories in the Middle East and found that the low revenue collection as a share of GDP there compared to other middle-income regions was due in part to corruption. This suggests that corruption is one of the factors that influence amount of taxes collected by governments. This view is also held by Ajaz and Ahmed (2010).

Wilford and Wilford (1978) found that GDP had an impact on tax revenues. Osoro (1993) revealed that tax reforms in Tanzania had a negative impact on tax revenues. Ariyo (1997)

found that tax administration had a significant influence on tax revenues in Nigeria. Chipeta (1998) evaluated the effects of tax reforms in Malawi and noted that the reforms had contributed significantly to tax revenue productivity. Milambo (2001) confirmed that tax reforms had improved the revenue productivity of the overall tax system in Zambia.

Muriithi and Moyi (2003) applied the concepts of tax buoyancy and elasticity to determine whether the tax reforms in Kenya achieved the objective of creating tax policies that made yield of individual taxes responsive to changes in national income. The results showed that tax reforms had a positive impact on the overall tax structure and on individual tax handles. More recently, Wawire (2011) noted that the determinants of VAT include GDP. institutional, demographic, and structural features of the economy.

1.1.2 Tax Reforms by the Kenya Revenue Authority

The Kenya Revenue Authority (KRA) was established by an Act of Parliament. Chapter 469 of the laws of Kenya, which became effective on 1st July 1995. The Authority is charged with the responsibility of collecting revenue on behalf of the Government of Kenya. A Board of Directors, consisting of both public and private sector experts, makes policy decisions to be implemented by KRA Management. The Chairman of the Board is appointed by the President of the Republic of Kenya. The Chief Executive of the Authority is the Commissioner General who is appointed by the Minister for Finance (KRA Website, 2011).

The purpose of KRA is assessment, collection, administration and enforcement of laws relating to revenue. The Authority is a Government agency that runs its operations in the same was as a private enterprise. In order to offer better single-window services to taxpayers. KRA is divided into five regions. These are Rift Valley Region, Western Region. Southern

Region. Northern Region, and Central Region. In terms of revenue collection and other support functions, the Authority is divided into the following Departments: Customs Services Department. Domestic Taxes Department (Domestic Revenue and Large Taxpayers Office), Road Transport Department. Support Services Department, and Investigations & Enforcement Department. Each department is headed by a Commissioner. In addition to the four divisions the Authority has seven service departments that enhance its operational efficiency. These are Human Resources Department. Finance Department. Board Corporate Services & Administration Department. Internal Audit Department, Information & Communication Technology Department. Research & Corporate Planning Department, and Marketing & Communication.

Tax reform measures are mainly undertaken in order to restore buoyancy to revenues, strengthen modern taxes, and drastically reduce the complexity and lack of transparency of the system (World Bank. 1990). The main factors contributing to an improved revenue performance are changes in tax legislation, tax administration and minimal tax evasion (Morrisset and Izquierdo, 1993).

Generally, tax reform in developing countries involves broad issues of economic policy as well as specific problems of tax structure design and administration (Musgrave. 1987). In this sense, tax reform has to grapple with complementarities between revenue structure and development policy including issues such as the impact of alternative taxes on saving and investment and the resultant challenges for macro balance (domestic and foreign) of the economy. Reforms may also address the issue of equity in the distribution of the tax burden as well as composition of the tax structure. There is, as well, the question of the

administrative adequacy of the tax system—usually approached within the wider context of political structures and feasibilities.

In Kenya, the economic recovery strategy (ERS) paper (2003) highlighted areas that required reforms in revenue collection such as removal of suspended import duties and all remaining discretionary duty exemptions in order to reduce the scope of tax evasion: consolidation of all tax collections by the KRA; expansion of the tax base in order to create space for the government to reduce some of the tax rates; harmonization of Kenya's tax regime to bring it in line with those of other member countries of the East African Community; and rationalization of personal income tax by raising tax threshold and reducing the number of tax brackets.

The main objectives of the reforms were to enhance the organization and management of revenue administration and improve regulatory framework and completion of reforms rolled forward from the previous period. With these broad objectives in place. KRA expected to achieve its revenue targets, streamline internal processes, uphold professionalism among staff and improve service delivery to its customers (KRA, 2010).

One of the reforms was the implementation of the Simba 2005 system which enabled the automation of about 90 per cent of customs operations and dispensed with the need for traders to physically visit KRA. The second reform was the creation of a Document processing Centre (DPC) which revolutionalised customs clearance and the so called long rooms were replaced by a small group of about 30 officers, based in Nairobi to process customs lodgements (entries) from all over the country. The third reform was the implementation of the customs oil stocks information system (COSIS) which is a web based

ICT system that monitors and reconciles oil stocks per oil marketer. Another reform was the introduction of the Electronic Tax Registers which aimed at addressing the perennial problem of poor record keeping for business transactions; taxpayer segmentation into Large taxpayers office (LI O). Turnover Tax for smaller taxpayers (TOT), and the medium taxpayers office (MTO) created in November 2010 for taxpayers with a turnover of between 350 million to 750 million, which resulted in substantial increase in the overall revenue collections, voluntary compliance, broadened tax base and reduced cost of collection.

Another reform was the implementation of an Integrated fax Management System (ITMS) which once fully implemented, will provide more efficient delivery in terms of faster responses and reduced compliance cost, enhance taxpayer empowerment by facilitating easier information access and transaction flexibility, improving integrity by minimizing human contact, facilitating seamless sharing of information across KRA and relevant third parties to assist in cross matching and statistical analysis, providing a single view of a taxpayer, and improving tax collection (KRA. 2010)

1.2   Problem Statement

Kenya introduced the tax modernisation programme in 1986 with the hope that this would, among other things, enhance revenue collection (Moyi and Ronge, 2006). This has not been the case. Recent failure by the government through the Kenya Revenue Authority (KRA) to meet its annual revenue targets has necessitated the need to look for avenues that will lead to an increase in revenue generated by way of taxation. Further, the new government structure of a devolved system is envisaged to increase government expenditure. This calls for policy makers to look for ways that will help the government to raise more revenue. Despite the

measures taken by KRA to improve its revenue collections such as the introduction of reforms and modernization programs, the authority has been falling short of its revenue targets. This calls for a study to establish whether the reforms have impacted on revenue collections at all and whether economic factors could be the reason for the shortfalls in revenues collected.

There are numerous studies done on KRA. Examples of the most recent studies on KRA include Lekasi (2010) on strategic management process, Ngui (2010) on the relationship between risk profiling and revenue performance, Nzyoki (2010) on improving service quality measurement for sustainable tax administration. Awitta (2010) on the effectiveness of revenue collection strategies, and Kiiru (2010) on tax-payer non-compliance behaviour. Others include Aliet (2008) on responses to challenges in implementation of customs reforms and modernization. Bondo (2008) on effectiveness of tax payer education as a revenue collection strategy, and Wambua (2008) on effects of reform programs on staff morale at KRA.

With the exception of Wawire (2011) who studied the determinants of Value Added Tax revenues in Kenya, most studies on tax issues have focused on different aspects. For instance. Owuor (2010) focused on risks that affect VAT revenue collection by KRA. Leseeto (2010) on effects of tax amnesty on VAT compliance in Kenya, and Chege (2010) on the impact of using ETR on VAT compliance of classified hotels in Nairobi. The study deviates from that of Wawire (2011) as the former tackled VAT while the present tackles the overall determinants of taxes collected by the Government of Kenya through KRA. Prior studies have shown that tax revenue may be influenced by corruption, tax administration.

reforms, and GDP. among others. The study thus poses the question: what are the effects of tax reforms and economic factors on tax revenue in Kenya?

1.3   Objective of the Study

To establish the effect of tax reforms and economic factors on tax revenues in Kenya.

1.4   Importance of the Study

This study will be invaluable to a number of stakeholders. First, the management of Kenya Revenue Authority will find this study useful as a point of reference as far as assisting in decision making regarding the determinants of tax revenue in Kenya.

If the recommendations of this study are put into practice by the relevant authorizes, the country stands to benefit a great deal from an improved tax revenue collection in terms of instituting better reforms for better revenue performance.

The students, researchers, policy makers, scholars and the academicians will find this study a useful guide in as far as further discussions or studies on the same are concerned. It will therefore form a basis of further research from interested individuals on the subject of tax revenue performance.

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

rhis chapter presents a review of literature on taxation. First, the theories related to the issue >f taxation are discussed. Secondly, an empirical review of the studies on taxation and the determinants or factors influencing tax revenue is presented. Then a summary of the review is made where the gaps in literature to be tilled by this study are identified.

2.2   Theoretical Review

The theories reviewed here are classical taxation theory, the theory of optimal taxation, and Keynesian taxation theory.

2.2.1   The Classical Taxation Theory

For a long time, the classical taxation theory was of most importance. As a result, taxation was only granted the fiscal role of providing state revenues. Adam Smith is considered to be the father of the scientific taxation theory. In his monograph "An Inquiry into the Nature and Causes of the Wealth of Nations" Adam Smith gave a definition of the taxation system, indicating the main conditions for its formation and putting forward four main taxation principles: equity, determination, convenience and thrift of taxation administration (Smith, 2005).

All the theoretical deliberation and scientific debates of those years were focused on one singular aspect: that the execution of the taxation's function—the provision of state revenues—is achieved on basis of the principles of equity and justice. Naturally, this theoretical approach to the nature and role of taxation changed in the course of many decades

and centuries, when economic relations became more complex and the need for the intensification of the state's regulatory role became more stringent. As a result, new taxation theories emerged: among them there were two directions of economic thought, which had the most significant influence on the taxation policy of the countries with a developed market ;conomy: the Keynesian and the neo-classical ones (De Vecchi, 2008).

2.2.2 The Theory of Optimal Taxation

The standard theory of optimal taxation posits that a tax system should be chosen to maximize a social welfare function subject to a set of constraints. The literature on optimal taxation typically treats the social planner as a utilitarian: that is, the social welfare function is based on the utilities of individuals in the society. In its most general analyses, this literature uses a social welfare function that is a nonlinear function of individual utilities. Nonlinearity allows for a social planner who prefers, for example, more equal distributions of utility. However, some studies in this literature assume that the social planner cares solely about average utility, implying a social welfare function that is linear in individual utilities (Vlankiw, Weinzierl and Yagan, 2009).

To simplify the problem facing the social planner, it is often assumed that everyone in society has the same preferences over, say, consumption and leisure. Sometimes this homogeneity assumption is taken one step further by assuming the economy is populated by completely identical individuals. The social planner's goal is to choose the tax system that maximizes the representative consumer's welfare, knowing that the consumer will respond to whatever incentives the tax system provides. In some studies of taxation, assuming a representative consumer may be a useful simplification. However, as we will see. drawing

policy conclusions from a model with a representative consumer can also in some cases lead to trouble (Mankiw et al., 2009).

Optimal tax theory addresses such questions as: Should the government use income or commodity taxes? Within commodity taxes, how should tax rates vary across commodities? How progressive should the tax system be? Optimal tax theory encompasses a range of models that focus on particular aspects of the tax system. These different models share three features. First, each model specifies a set of feasible taxes for the government, such as commodity taxes, and the government's revenue needs. The models typically rule out lump-sum taxes, which would cause no economic distortion. Second, each model specifies how individuals and firms respond to taxes. That is. individuals have preferences about goods and leisure; firms have a given technology for producing goods; and individuals and firms interact in a given market structure (often perfect competition). Third, the government has an objective function for evaluating different configurations of taxes. In the simplest models, the government's objective is to minimize the excess burden generated by the tax system while raising a set amount of revenue. The more complicated models balance efficiency considerations with equity concerns. The models that include equity are usually more concerned with vertical equity rather than either horizontal equity or the benefit principle (Gentry. 2003).

2.2.3 Keyncsian Taxation Theory

Ihe initiator of the Keynesian taxation theory was John Keynes, who exposed its main principles in his book "The General Theory of Employment, Interest and Money," in which he advocated state interventions in the processes of market economy regulation (Keynes.

1936). According to Keynes, fast economic development must be based on a market expansion and an associated increase in consumption. As a result, state intervention is achieved at the level of effective demand. One of the main assumptions in Keynes's theory is [hat economic growth is related to monetary savings only in conditions of full-employment Mankiwetal., 1993).

In the contrary case, large amounts of savings hinder economic development as they represent a passive form of income and are not invested in production; as a result the author suggested that surplus savings must be subtracted with the help of taxation. This is why the state must intervene w ith the purpose of subtracting income savings with the help of taxation in order to finance investments and cover state expenditures. Keynes argued that high level progressive taxation is necessary and that low tax rates lead to reduced state revenues and as a result contribute to economic instability. That is. according to Keynes taxes must play the most important role in the system of state regulation. High taxes stimulate economic activity; influence the stability of the economy and in the context of the economic system act as integrated flexibility mechanisms (Keynes, 1936).

2.3   Empirical Studies

Various empirical studies have been used to examine the determinants of tax revenue. Most studies focus on analyzing the tax revenue share variation to differences in the development level, the structure of the economy, size of foreign sector, and other socio-economic variables (Agbeyegbe et al. 2006). This empirical review is divided into two parts. Part 1 reviews studies on tax reforms and tax revenues while Part 2 reviews economic factors and tax reforms.

2.3.1   Impact of Economic Factors on Tax Revenues

Previous tax effort studies have found that economic development measured by GDP, agriculture sector share of GDP, and share of foreign trade (which is used to measure the degree of openness), among others, are often statistically significant in explaining the cross-country variation in the tax ratio (Stotsky and WoldeMariam. 1997). However, although these studies have identified major determinants of the revenue ratio, these variables do not totally explain the tax ratio variation among countries Agbeyegbe et al. (2006).

Studies investigating the influence of macroeconomic policies on tax revenue have been carried out in the past two decades. For example, using data of twenty eight countries of Sub-Saharan Africa, (Nashashabi and Bazzoni 1994) find that devaluation of exchange rate, import liberalization, and decreasing of terms of trade lowered the tax base.

Bberill et. al. (1999) establish their study based on a panel of twenty seven developing countries from Africa. Asia, and the Western Hemisphere, covering the period 1980-1992 and a panel of 105 countries, over the period 1980-1995, measuring the impact of trade liberalization on foreign trade tax revenue. Based on their estimation results, they conclude that tariff reforms have not resulted in lowering the trade tax revenue. They also find that depreciation of the exchange rate is significantly related to high foreign trade tax revenues.

Adam et. al. (2001) examine the effect of exchange rate regimes on tax revenue performance using a panel of twenty two Sub-Saharan Africa over 1980-1996. In their study, they distinguish two variables for the exchange rate, one reflects the equilibrium exchange rate and the other reflecting the degree of misalignment of the exchange rate. The study also analyzes the effects of trade openness as a proxy of trade liberalization and other

macroeconomic variables on tax revenue and tax major components. Based on their estimations, they conclude that the poor cumulative relative revenue performance of the Franc zone countries is mainly attributable to differences in environmental and structural factors, and to their different responses to changes in the equilibrium real exchange rate, but that misalignment of the exchange rate also played a role.

A recent study of Agbeyegbe et. al. (2006) examines the relationship between trade liberalization, exchange rate, and tax revenue applying a pooling of twenty two Sub-Saharan Africa over the period 1980-1996. In this study, two proxies are used to measure the trade liberalization. In their study, they also examine the influences of other socio-economic variables on the tax revenue and its major components. Employing generalized method of moment regression, they find that the relationship between trade liberalization and tax revenue is sensitive to the proxy used to measure trade liberalization. They also find that exchange rate appreciation and higher inflation show some linkage to lower tax revenue and major tax components. Based on their empirical findings, they conclude that trade liberalization associated with appropriate macroeconomic policies could be carried out in a way that preserves tax revenue yield.

Martinez-Mongay (2002) analysed the long-term determinants of government receipts (tax revenue) and found that the long-run evolution of tax revenues is ultimately dominated by their financing role, while government receipts depend much less on other functions of taxes, such as redistribution or regulation. The study also noted that in the future, ageing of populations will be a major determinant of the evolution of spending and, thus, government receipts. This view is also held by Cambridge Econometrics (1997) who carried out an

extensive review of the most relevant work done on the structural determinants of tax revenues, particularly those related with ageing.

Other than ageing, another factor that could affect tax revenue collection is economic integration. The functioning of a fully integrated capital market may be distorted by capital chasing the lightest possible taxation regimes instead of the most efficient users. Where capital mobility is concerned, as discussed in Buti and Martinez-Mongay (2000). it could hamper the ability of governments to levy capital taxes. The most mobile tax bases might be eroded due to high taxes, increased opportunities for tax avoidance and evasion, and the migration of taxable income to low-tax jurisdictions, which may cause tax degradation. Harmful tax competition might lead to very low or even zero tax rates on mobile factors. As a consequence, fiscal revenues could fall significantly, which would lead to sub-optimal provision of public goods. Alternatively, it could jeopardize fiscal discipline unless the tax burden is shifted to less mobile bases like labour.

Cambridge Econometrics (1997) also considers the potential effects of a number of other structural long-run factors such as deindustralisation. growing income inequality, increased female participation and rising self-employment. However, the evidence is inconclusive. Changes in the productive structure should not have any significant impact on tax revenues, even though higher female participation could increase income inequality. On the other hand, the study argues that self-employment, unless it poses outstanding problems in tax enforcement, does not seem to have any significant impact on government receipts. Nevertheless, it should be borne in mind that the ratio of social security contributions paid by the self-employed to the average wage is lower than that of the employees. In other words, a

larger proportion of the self-employed would lead to lower social security contributions per average wage.

Bonga (2010) used panel data analysis for nineteen countries during 2000-2009 to analyze empirically the determinants of tax buoyancy. Among the variables identified as affecting annual tax buoyancy is monetization. with empirical results confirming its importance. The results have shown that the way monetization is handled in developing nations affects annual tax buoyancy negatively. Other variables that have been found to be affecting tax buoyancy include the growth in the agricultural and industrial sectors' contributions to national income, external aid growth, growth of fiscal deficit and growth of total expenditure. The determinants of tax buoyancy have been suggested following tax handle theory advice. The study yielded such results because quality dimension of tax performance have been considered, which has been neglected by many previous authors.

The nature of the effect of trade liberalization on the tax revenue in developing countries has been a subject of empirical investigations over the last two decades. Trade liberalization involves a reduction of the tariff rates, movement towards unification of tariffs, and relaxation of quantitative barriers. Trade liberalization, therefore, leads to revenue losses in . unless the liberalization is associated with domestic tax reform (Khattry and Rao 2002).

Gupta (2007) looks at the main determinants of revenues (excluding grants) of the central government, and analyzes the extent to which factors such as government policies, the structure of the economy, institutions and the stage of development explain their variation. While a number of studies have analyzed the principal determinants of tax revenue, this study extends the literature by using a broader dataset and correcting for some of the

econometric issues that were previous!) ignored. The dataset is extended by using a larger number of countries over a sufficiently long time horizon. Moreover, he incorporates new variables such as specific sources of tax revenue, political stability, economic stability, law and order etc. as potential determinants of revenue performance. The study addresses some potential econometric problems by employing econometric specifications that take into account, among other things, the persistence of revenue performance and the possibility of some of the explanatory variables being influenced by revenue performance.

The principal findings are that structural factors such as per capita GDP, share of agriculture in GDP. and trade openness are strong determinants of revenue performance, it was also found that although foreign aid improves revenue performance, foreign debt does not have a significant effect. Among the institutional factors, corruption emerged as a significant determinant of a country's revenue performance. Political and economic stability matters as well, but this finding is not robust across specifications. Finally, countries that depend on taxing goods and services as their primary source of tax revenue, have relatively poor revenue performance. On the other hand, countries that rely more on income taxes, profit taxes, and capital gains taxes, perform much better.

Wawire (2011) argues that growth elasticities for VAT are all greater than one. The estimation results show that total GDP elasticity of VAT revenues is less than the elasticities with respect to monetary GDP. suggesting the existence of an underground economy in Kenya over the period of analysis. It is found that VAT revenues respond with substantial lags to changes in its determinants and that VAT revenues are sensitive to unusual circumstances. The study concludes that Kenya's VAT revenue is very responsive to changes

m their determinants especially international trade. There is therefore the challenge of creating a stable VAT system so that tax revenues can increase rapidly as the economy **grows.**

2.3.2 Impact of Tax Reforms on Tax Revenues

According to Ajaz and Ahmed (2010). developing countries face a number of institutional problems in the process of revenue generation. One of the main problems is corruption in tax administration. The second main problem of low revenue generation is low quality of governance. One of the important characteristics of the political instability is unstable and shifting behaviors of government, which hinders the process of long-term reforms in the system. The quality of governance as a whole is also relevant in the context. It is widely agreed that the presence of tax evasion and corruption of public officials is social phenomenon that can significantly reduce tax revenue and seriously hurts economic growth and economic development.

Empirical analysis of value-added tax revenues on a sample of 34 countries conforms with conventional wisdom from theoretical and case studies. The key implication is that for value-added tax to provide superior revenues, it should be levied in a single rate on as broad a base as possible. And tax administration and enforcement must be tough to ensure compliance (Bogetic and Hassan. 1993).

Kubatova and Rihova (2008) studied the factors affecting revenue from corporate tax. They verified the hypothesis that the statutory tax rate and profitability of the corporate sector arc not the sole and most important factors affecting the amount of revenues collected from

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corporate tax. The method used is panel regression analysis. The regression equations that included only the statutory rate of tax and size / profitability of the corporate sector showed low values of theku (modified) coefficient of determination. One can thus presume that these factors are not the sole and most significant factors influencing revenues from corporate taxes. Other factors from which the influence on revenues from corporate taxes was shown were tax evasion. Another factor included into the "tax evasion" category is debt financing of corporations. The regression analysis also showed that also the degree of incorporation has a statistically significant impact on revenues from corporate tax. The regression analysis also showed that the cyclically of economic growth has a statistically significant impact on revenues from corporate tax.

In some Arab countries, budget deficits and the unproductive use of public expenditures have limited the critical investments in both human resources and basic infrastructure that are necessary for providing a foundation for sustainable economic growth. In the last two decades, many Arab countries have embarked on economic and financial reform programs some of which are supported by the International Monetary Fund. These reform programs have usually included measures to raise tax revenues and to restructure tax systems (Eltony, **2002).**

Aizenman and Jinjarak (2005) evaluate the political economy and structural factors explaining the collection efficiency of the Value Added Tax [VAT], They consider the case where the collection efficiency is determined by the probability of audit and by the penalty on underpaying. Implementation lags imply that the present policy maker determines the

efficiency of the tax system next period. Theory suggests that the collection efficiency is impacted by political economy considerations greater polarization and political instability would reduce the efficiency of the tax collection. In addition, collection is impacted by structural factors affecting the ease of tax evasion, like the urbanization level, the share of agriculture, and trade openness. Defining the collection efficiency of the VAT as the ratio of the VAT revenue to aggregate consumption divided by the standard VAT rate, they evaluated the evidence on VAT collection efficiency in a panel of 44 countries over 1970-99. The results are consistent with the theory - a one standard deviation increase in durability of political regime, and in the ease and fluidity of political participation, increase the VAT collection efficiency by 3.1% and 3.6%. respectively. A one standard deviation increase in urbanization, trade openness, and the share of agriculture changes the VAT collection efficiency by 12.7%. 3.9%, and - 4.8%. respectively. In addition, a one standard deviation increase in GDP/Capita increases the tax efficiency by 8.1%. Qualitatively identical results apply for an alternative measure of VAT collection efficiency, defined by the ratio of VAT revenue to GDP divided by the standard VAT.

Imam and Jacobs (2007) estimated the impact of corruption on the revenue-generating capacity of different tax categories in the Middle East. They found that the low revenue collection as a share of GDP there compared to other middle-income regions is due in part to corruption, and certain taxes are more affected than others. Taxes that require frequent interaction between the tax authority and individuals, such as taxes on international trade, seem to be more affected by corruption than most other types of taxation.

\loyi and Ronge (2006) reviewed tax revenue performance as well as tax design and administration changes during the period 1996 - 2005 in order to identify priorities for further tax reform. Empirical analysis reveals the adverse effect of inflation on tax revenues. The tax structure is less buoyant and possibly inelastic although indirect taxes, and not direct taxes, hold the capacity to improve the flexibility of the tax system. The challenges that confront tax design include taxation of agriculture and the informal sector, repeal of tax holidays, high effective protection, high dispersion of tariff rates, detailed and rigid custom rules, poor response of VAT to reforms, weak capacity to process large volumes of returns and refunds for zero-rated transactions. In addition. Kenya's tax system is burdensome in terms of time taken to prepare and submit tax returns.

Muriithi and Moyi (2003) applied the concepts of elasticity and buoyancy to determine whether tax reforms in Kenya achieved these objectives. Elasticities and buoyancies are computed for the pre-reform period as well as the post-reform period. Evidence suggests that reforms had a positive impact on the overall tax structure and on the individual tax handles. In fact, the elasticity of indirect taxes was low and that of direct taxes was high, especially after the reforms. Despite this positive impact, the reforms failed to make VAT responsive to changes in income, although VAT was predominant in the tax structure.

2.4 Summary of Literature

leased on the review above, there are a number of theories that explain why tax reforms are carried out. These theories will guide this study as far as explanation of the phenomenon is concerned. The empirical review has clearly shown that there is a gap as concerns a study on the impact of reforms, economic growth, and corruption on tax revenues is concerned. Given

ihat the Kenya Revenue Authority initiated reforms to improve revenue performance yet the revenue stream has been dwindling, this study comes in handy to empirically test the impact of such reforms on revenue collections. Further, given the high corruption indices every year from the Transparency International, it is of importance to study what influence corruption has on revenue collection. The GDP rate has also not improved much over the years despite the reforms. This therefore calls for a study to address the impact of such economic growths on tax revenues. The study therefore deviates from the other studies that have been done on the Kenyan market in two significant ways by focusing on overall tax revenues rather than specific taxes and by introducing corruption and economic growth into the model rather than focusing on reforms alone.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1   Introduction

This chapter describes the research design and methodology involved in the study. The early part describes the survey method used, the population and sample. Data collection method and data analysis techniques are also discussed in the latter part of the chapter.

3.2   Research Design

According to Saunders. Lewis and Thornhill (2007). a research design can be named in terms of time horizons, choice of methods, or strategies used to collect data. Using the time horizon as a basis in this study, the present study is therefore a longitudinal study because there is available secondary data on revenues for a long period of time as well as data on economic factors (especially GDP) which can be manipulated in the research. But naming this study in this manner cannot capture the way in which reforms were analysed. Thus, the study named the design based on the classification by method of analysis as espoused in Mugenda and Mugenda (2003). In this manner, a study could be designed as descriptive, causal-comparative. or correlational study. The method of analysis that most captured the objectives of this study was correlation and the study design was therefore appropriately named a correlation design. In this manner, the study was able to establish the relationship between the variables in the study. This was therefore the appropriate research design in this study.

3.3   Data Collection

I he type of data collected in this study was secondary data. This data was collected for a 10 year period beginning 2000-2009. The 10 year period is large enough to cater for the

variations in yearly revenues collected over the time. T he specific data collected were for the tax revenue (dependent variable). GDP, corruption indices, reforms (all independent variables).

Tax revenue data were collected from the Central Bank of Kenya website where the data on the revenue collected per year for the 10 year period under study were sought. GDP values were collected from the Kenya National Bureau of Statistics and the World Bank. The GDP values were for each of the years under study. Corruption indices for the 10 year period were collected from the Transparency International Website. Reforms were measured using dummy variables. A value of 1 was accorded to the reform period while 0 for the pre-reform period.

3.4   Data Analysis

The data were entered into the Statistical Package for Social Sciences (SPSS) software version 19. A regression analysis was then used to perform a multiple regression analysis. The results of the regression were interpreted based on the Pearson correlation coefficient, r. the r^2, and the adjusted r^2. Further, the F-statistics were observed and interpreted for significance using the p-value (Sig.). This was the ANOVA table. Then, the coefficients of each of the variables in the model was observed and interpreted for the direction of influence (+ or - effect) as well as for their significance in the model (t or p-values). The following model was used:

$$TAX \ RHV = u + p,TAX\_REF + p_2GDP + p_?CORR + \i$$

Where a, p, p_2 p3 and |i are constants

is the tax revenue (dependent variable) measured by the revenue figures from 2002-2010.

is the tax reforms (independent variable) measured by dummy variables. A value of 1 will be awarded for the period after reforms, otherwise 0.

is the Gross Domestic Product (independent variable). This measures the economic growth. The GDP values will be picked from 2002-2010 and converted by using natural logarithms.

is the corruption variable (independent variable). This will be measured using corruption perception indices from 2000-2009 using the Transparency International figures available on their website.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1   Introduction

Ihis chapter presents the results of data analysis. This chapter is organized as follows. Section 4.2 shows the trend analysis results on corruption index. GDP. and tax revenues. The results of regression analysis arc shown in section 4.2. A discussion of findings is made in section 4.3.

4.2   Trend Analysis

Figure 4.1 shows the trend of corruption perception index over time. CPI score relates to perceptions of the degree of corruption as seen by business people and country analysts and ranges between 10 (highly clean) and 0 (highly corrupt). As shown, the CPI has been rising over the years since 2003 when it was at its lowest (1.9). This means that Kenya is become less and less corrupt over time.
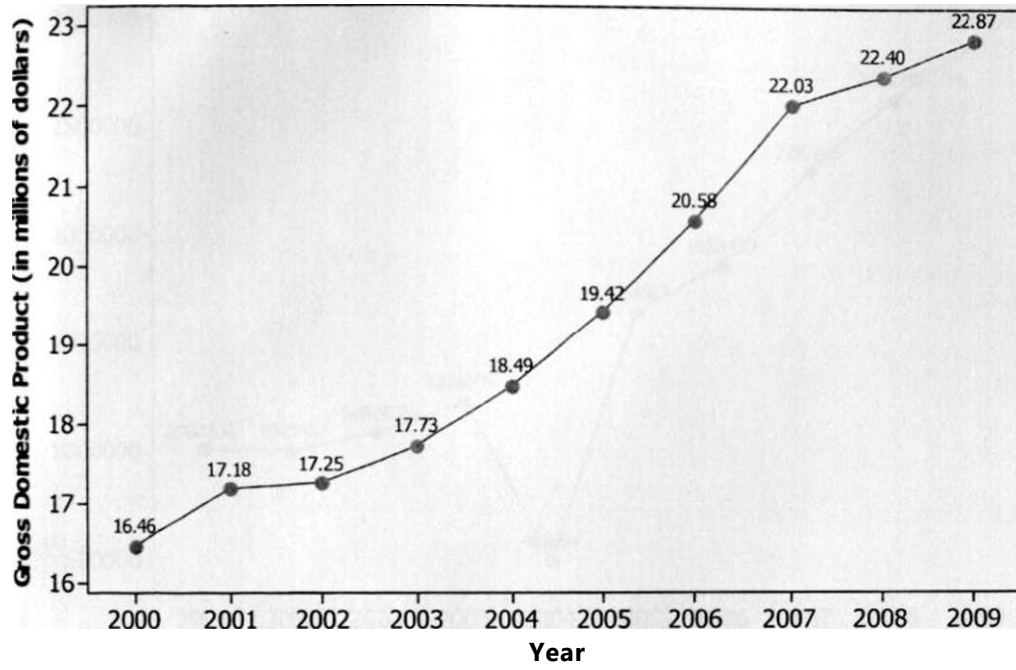
Figure 4. 1:   Kenya Corruption Perception Index Trend for 2000-2009
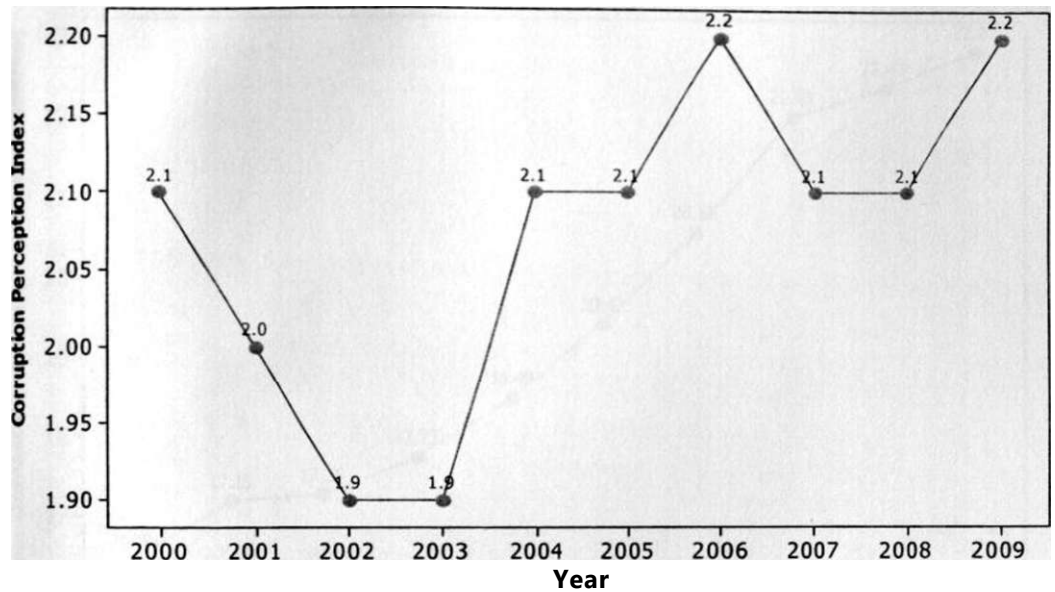
Source: Research Data (2011)

Figure 4.2 shows the trend of GDP over time. As shown, the GDP has been rising over the years since 2000. The GDP was at 22.87 by 2009.

Figure **4. 2:**   **Kenya GDP Trend for 2000-2009**

Source: Research Data (2011)

Figure 4.3 shows the trend of tax revenues in Kenya from 2000-2009. The graph shows an upward trend in the tax revenues collected except for a deep in revenues in 2004. Thus, there has been an increase in tax revenues collected by the Kenya Revenue Authority over the years.
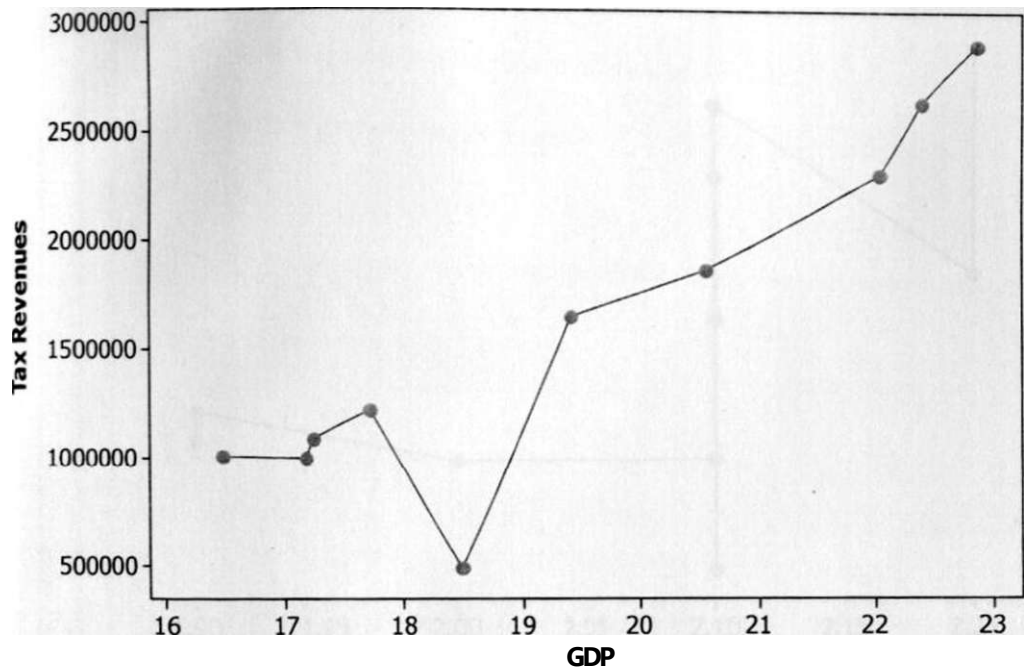
4. 3: Tax Revenues Trend for 2000-2009
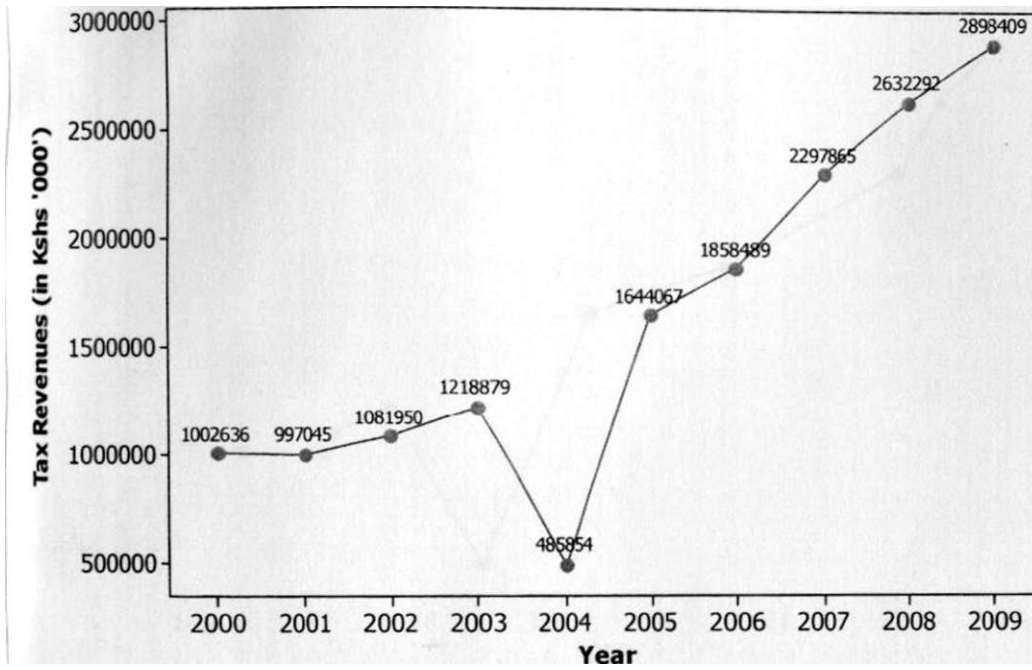
Source: Research Data (2011)

Figure 4.4 shows a graphical representation of the relationship between tax revenues and GDP from 2000-2009. The graph shows a linear relationship between the two variables. The relationship is positive as tax revenues rise with the rise in GDP. A linear regression is performed and presented in section 4.3 to show whether the relationship is significant and whether it is positive or negative.

Figure 4. 4:   Tax Revenues and GDP

Source: Research Data (2011)

Figure 4.5 shows a graphical representation of the relationship between tax revenues and corruption. As shown, the graph shows that lower levels of corruption are associated with higher tax revenues while higher corruption levels are associated with lower tax revenues. A linear regression is performed and presented in section 4.3 to show whether the relationship is significant and whether it is positive or negative.

Figure 4. 5:   Tax Revenues and Corruption
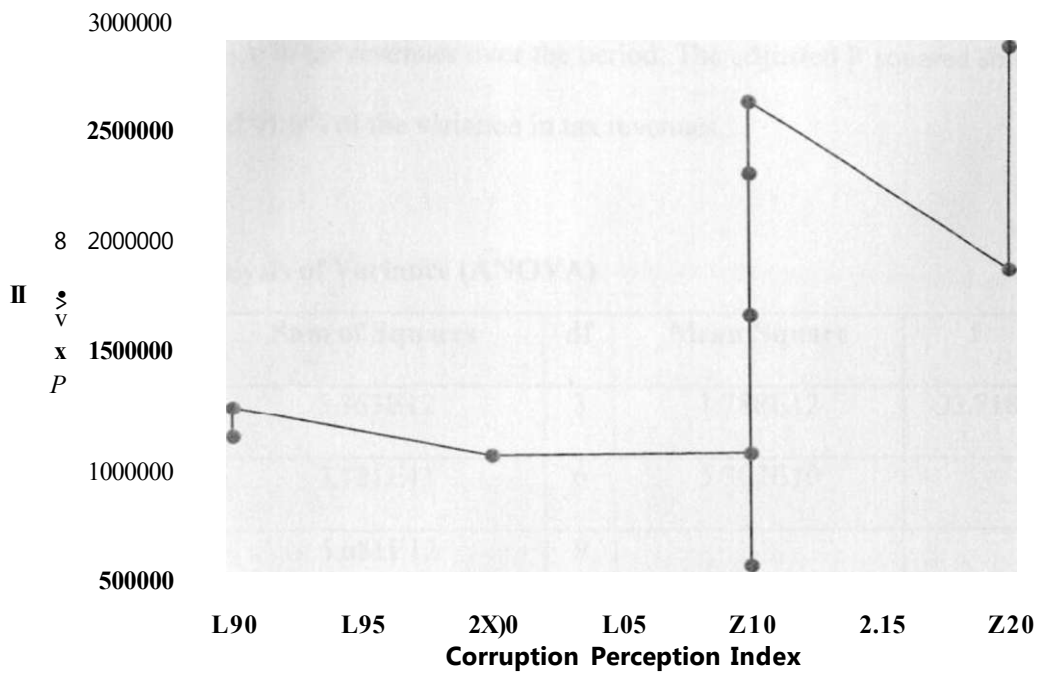
Source: Research Data (2011)

4.3   Regression Analysis

A multiple regression analysis was performed with tax revenues as a dependent variable and

tax reforms, GDP and corruption as the independent variables. The results are shown in

Tables 4.1. 4.2, and 4.3.

Table 4. 1:   Pearson Correlation Coefficients

R	R Square	Adjusted R Square	Std. Error of the Estimate
.972	.944	.916	230259.18024

Source: Research Data (2011)

Table 4.1 shows that the variables had an overall positive effect on tax revenues (R=0.972). From the R square of 0.944. it can be noted that reforms, GDP, and corruption explained 94 4% of the variance in tax revenues over the period. The adjusted R squared shows that the ^ariables influenced 91.6% of the variance in tax revenues.

Table 4. 2:   Analysis of Variance (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
F Regression	5.363E12	3	I.788E12	33.718	.000
Residual	3.I81E11	6	5.302E 10		
Total	5.68 IE 12	9			

Source: Research Data (2011)

The model fit results are shown in Table 4.2. As shown, the F statistic was 33.718 and was significant (Sig. = 0.000). This means that the model was good enough to explain the relationship between the variables in the study.

Tabic **4.** 3:   **Variable Coefficients**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	-9246496.2	2439943.7		-3.790	.009
Reforms	-1037944.2	316826.4	-.675	-3.276	.017
GDP	453788.4	57031.2	1.362	7.957	.000
Corruption	1284497.8	1139693.0	.171	1.127	.303

Source: Research Data (2011)

Table 4.3 shows the coefficients of the model. As shown, reforms had a negative relationship with tax revenues (beta = -0.675) but was significant (Sig. = 0.017). The study also found That economic conditions as measured by GDP had a positive influence on tax revenues (beta - 1.362; Sig. = 0.000). The study noted that corruption as measured by Corruption Perception Index (CPI) had insignificant positive influence on tax revenues (beta = 0.171; Sig. = 0.303). These results therefore show that tax revenues were influenced more by tax reforms and economic conditions. Tax reforms of 2004/2005 have had a negative impact on the tax revenues contrary to what they were outlined to do - improve tax revenues. Economic conditions had led to better tax revenues as this had a positive impact. Corruption did not ha\e a significant impact on tax revenues in Kenya over the period under review.

CHAPTERS:

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1   Introduction

This chapter presents the summary of research findings, conclusions of the study, recommendations for policy and practice and suggestions for further research.

5.2   Summary of Findings

The trend analyses revealed that corruption index in Kenya had been improving since 2000. The results revealed further that the GDP had been rising over the years during the same period under review. The tax revenues had also been rising over the same period. The trend analyses also showed that tax revenues had a linear positive relationship with GDP. Tax revenues and corruption also had a linear relationship and higher corruption indices were associated with higher tax revenues and vice versa.

Hie regression results revealed a positive relationship between the independent variables and tax revenues (R = 0.972). The adjusted R squared shows that the variables explained 91.6% of the variance in tax revenues. The linear model used in the study passed the fit test (F = 33.718. Sig. = 0.000). This means that the regression model explained most of the relationship. The variable coefficients showed that reforms were negatively correlated with tax revenues (beta = -0.675; Sig. = 0.017). GDP had a positive influence on tax revenues (beta = 1.362; Sig. = 0.000). Corruption did not have a significant impact on tax revenues (beta = 0.171; Sig. = 0.303).

5.3   Conclusion

The study concludes that tax reforms significantly influence tax revenues in Kenya but the relationship was negative. This means that over time, the reforms have led to lower tax revenues. Given that the reforms were instituted to improve the tax revenues, it seems that the role of reforms has been counterintuitive.

The study also concludes that economic conditions (as measured by GDP) have had a significant positive impact on tax revenues in Kenya. This means that higher economic growths are associated with higher tax revenues while lower economic growth are associated with lower tax revenues. This is consistent with theory and prior studies.

Lastly, the study concludes that corruption does not have a significant impact on the tax revenues collected in Kenya. This can be attributed to the fact that corruption indices for Kenya have been improving over time but the changes in the indices have also not been significant. But from the trend analysis, it was shown that lower corruption (higher CPI) was associated with higher revenues and vice versa.

5.4   Recommendations

The study makes a number of recommendations based on the findings and conclusions of the study. First, there is need for the Kenya Revenue Authority to relook into the issue of reforms and modernization programs. Despite the fact that the revenues have been rising, that rise is being stalled by some of the reforms. Thus the KRA needs to check on whether some of the reforms they have instituted lead to better revenue collections. This can be done by assessing the impact of the reforms as stipulated in the strategic plans and making necessary adjustments.

Secondly, the study recommends that there is need for the Ministry of Finance. Ministry of Planning, and other relevant bodies who play a direct role in stimulating economic growth to institute policies that can grow the economy by improving the country's GDP. By improving the GDP, the tax revenues will significantly rise. Thus, reforms and measures need to be carried out in all sectors of the economy to spur economic growth and therefore improving the tax revenues.

Lastly, the study recommends that efforts should be made by the Government of Kenya to improve the country's ranking on the global corruption index. At the moment, the improvements as far as corruption indices are concerned are not significant enough to impact on tax revenues but there is a potential for better ratings to lead to higher tax revenues because less corruption is associated with better business environment.

5.5   Limitations of the Study

The study encountered a number of limitations. First, the data covered a ten year period from 2000-2009. As much as this is a longer period, it was not long enough to take into consideration the pre-reform periods. Care should therefore be taken in interpreting these results.

Secondly, the study only used three independent variables. There are other factors which might affect tax revenues which were not considered in this study. Thus not all the factors were controlled for in the model.

Lastly, the tests for normality of distribution were not performed nor were the tests for independence of independent variables done. It is therefore not possible to ascertain whether

the use of ordinary least squares regression was warranted or if there was need to use rank regression instead.

5.6   Suggestions for Further Research

Researchers need to carry out further studies in Kenya to establish why tax revenues are negatively related with tax reforms when the reforms were meant to improve the tax revenues. Could it be that the reforms have not been carried out well? Or are the reforms bad for the tax revenues? Other methods should be used to carry out the same.

Future studies should widen the research period in order to have a longer time series data which can give more reliable results than the ten year period used in this study. This can be done by focusing on a period from independence (1963) to a current period. Further, another method other than the use of dummies to represent the tax reforms would be a better estimate.

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 01,S regression analysis are met can be performed. This way, the results would be more reliable.

This research can only be replicated in other countries especially the East African countries to establish the same. An inclusion of more determinants of tax revenues in the model would also go a long way to inform knowledge on this matter.

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