EFFECT OF VALUE ADDED TAX REFORMS ON REVENUE COLLECTION
IN KENYA REVENUE AUTHORITY, KENYA

BY
DINA CHIZI CHILIBASI
REG. NO.: D61/72815/2012

A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN
PARTIAL FULFILMENT FOR THE AWARD OF DEGREE IN MASTER OF
BUSINESS ADMINISTRATION OF UNIVERSITY OF NAIROBI

NOVEMBER 2014
DECLARATION

This project is my original work and has not been presented in any other university or college for examination/academic purposes.

Signed…………………………………Date……………………………………

DINA CHILIBASI

REG. NO.: D61/72815/2012

This project has been forwarded for presentation with my approval as the University Supervisor.

Signed…………………………………Date……………………………………

DR. JOSIAH ADUDA

SUPERVISOR
DEDICATION

I dedicate this work to my beloved parents Mr Franklin Chilibasi and Mrs. Phoebe Chilibasi
ACKNOWLEDGEMENTS

I would like to thank the Almighty God for the gift of life and the gracious time He gave me that made it possible for me to write this paper.

I would like to express my deepest thanks to all the people, who in their special ways supported me in search of knowledge which culminated in the completion of this research project.

This research project could not have been successfully completed without an expert opinion. I am grateful to my supervisor Dr. Josiah Aduda for the interest in my work and valuable timely advice.

Special thanks go to my parents and brother for the sacrifices made for me. Last but not least, I am indebted to all those I did not mention but have been instrumental in different ways, including supporting me materially, financially and spiritually.
ABSTRACT

Kenya introduced VAT to replace the Sales Tax which had been in operation since 1973. VAT has been the choice instrument for unexpected expenditure by increasing VAT rates. This study evaluates VAT revenue productivity for the period 2009 to 2013. The objective of this study was to evaluate the effects of VAT reforms on revenue and come up with a model for predicting VAT revenue financial years 2009 to 2013. The analysis showed that VAT reforms have a significant effect on VAT revenue. This implies that the growth in VAT revenue during the period of study was accounted for by implementation of the reforms. In the VAT revenue equation, the independent variable is the revenue collected and the dependent are reforms on vat which are online filling of returns, vat returns and integrated management system.

This study provides decision makers with an analytical framework which can be used to estimate the associated revenues for a VAT in Kenya and guidance to policymakers in countries planning to introduce a VAT. It identifies the tax reforms on VAT which when properly understood, documented, and captured in relevant tax revenue models, would make it possible to estimate accurately VAT revenues within a specified period of time. Although past studies advocated for raising rates within the existing system as the most obvious approach for increasing revenues, policy makers should note that this study finds that the decision has the effect of reducing VAT revenue. The study also contributes to the existing literature on the VAT structure in Kenya and stimulates further research in the area of VAT. Researchers should study the effects of VAT reforms on tax revenue.
TABLE OF CONTENTS

DECLARATION .................................................................................................................. ii
DEDICATION .................................................................................................................. iii
ACKNOWLEDGEMENT ................................................................................................. iv
ABSTRACT ...................................................................................................................... v
TABLE OF CONTENTS ................................................................................................. v
ABBREVIATIONS .......................................................................................................... xi
LIST OF FIGURES .......................................................................................................... x

CHAPTER ONE .............................................................................................................. 1
INTRODUCTION ........................................................................................................... 1
  1.1. Background of the Study ....................................................................................... 1
      1.1.1 Value Added Tax Reforms .............................................................................. 2
      1.1.2 Revenue Collection ....................................................................................... 4
      1.1.3 VAT Reform and Revenue Collection ............................................................... 5
      1.1.4 VAT Reform and Revenue Collection in Kenya ............................................... 7
  1.2 Research Problem .................................................................................................. 9
  1.3 Objectives of the Study .......................................................................................... 9
  1.4 Value of the Study .................................................................................................. 9

LITERATURE REVIEW .................................................................................................. 10
  2.1 Introduction ........................................................................................................... 10
  2.2 Theoretical Framework ......................................................................................... 10
      2.2.1 The Keynesian Economic Theory ................................................................. 11
      2.2.2 Rational choice theory .................................................................................. 11
      2.2.3 Compliance theory ....................................................................................... 13
  2.3 Determinants of Revenue Collection ................................................................... 14
      2.3.1 Tax rate structure ......................................................................................... 14
      2.3.2 Inflation ........................................................................................................ 15
      2.3.3 Gross domestic product ................................................................................. 16
2.3.4 Age of tax .......................................................... 16
2.4 Review of Literature ................................................. 16
2.5 Summary of Literature review ....................................... 26

CHAPTER THREE .................................................................. 27

METHODOLOGY ................................................................... 27
3.1 Introduction ................................................................. 27
3.2 Research Design ............................................................ 28
3.3 Target Population ........................................................... 28
3.4 Sample ........................................................................... 28
3.5 Data Collection ............................................................... 28
3.6 Data Analysis ................................................................. 29
3.7 Data Validity and Reliability ............................................. 30

CHAPTER FOUR .................................................................... 31

DATA ANALYSIS .................................................................. 31
4.1 Introduction ................................................................. 31
4.2 Data Analysis ............................................................... 31
4.2.1 Online Filling of returns ............................................. 33
4.2.2 Integrated Management System .................................. 33
4.2.3 VAT Refunds ............................................................ 35
4.2.4 VAT revenue model ................................................... 36
4.3 Summary and interpretation of findings .............................. 40

CHAPTER FIVE .................................................................... 43

SUMMARY, CONCLUSION AND RECOMMENDATION ................. 43
5.1 Summary ................................................................. 43
5.2 Conclusion ................................................................. 44
5.3 Limitation of study ...................................................... 45
5.4 Recommendation ........................................................................................................46
5.5 Suggestion for further Research ..................................................................................47
REFERENCES ..................................................................................................................48
APPENDIX .........................................................................................................................51
ABBREVIATIONS

EACCMA - East African

GDP - Gross Domestic Product

ITD - International Tax Dialogue

KRA - Kenya Revenue Authority

RGDP - Real Gross Domestic Product

SSA - Sub Saharan Africa

USA - United States of America
LIST OF FIGURES

Figure 4.2 Tax productivity-----------------------------------------------31
Figure 4.2.1 Online filing of returns--------------------------------------33
Figure 4.2.2 Vat Refunds-----------------------------------------------33
Figure 4.2.3 Integrated management system-----------------------------34
Figure 4.2.4 Vat revenue model----------------------------------------35
CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

Economists have long recognized that taxation created economic inefficiency perhaps by distorting the price of leisure relative to that of all other goods in the economy Geirtz (2009). Consequently tax payers can shift income as well as alter their tax deductions, exclusions and credit and this in turn results to income escape. And perhaps interestingly, tax payers have some desertion over what they share of their income is reported to the tax authorities. Indeed tax issues are not easy to handle by anyone and reports suggest that this should be left to tax experts Mutua( 2012). However this study does not seek to delve into taxpayers preferences of payment of tax but it seeks to examine at the relationship between tax reforms and revenue collection.

To start with therefore, tax reforms are driven by many factors including the desire for tax system, equity, integrity Warren & McManus(2007). However when tax system falls short of these factors, many governments around the world fair diminishing revenues, indeed Kenya tax reform has undergone a continual transformation over the last 20 years. Consequently, new Valued Added Tax (VAT) has been introduced and external tariffs enhanced to match those of the neighbouring East African Nations. Furthermore, previous research shows that Kenya’s tax structure is skewed towards income taxes and VAT since the two are the major source of tax revenue. For example during the period 2005-2012, income tax accounted for 36.3 per cent for government’s revenue. Similarly,
during the same period, VAT (which is the focus of this study) was second with an average of 25 per cent Mutua(2012).

Anecdotal reports suggests that government of Kenya losses so much through poor tax structures resulting to tax evasion. To illustrate further, the latest report on Kenya’s tax system reveals that the rogue firms rob the government of billions through tax evasion yearly. Moreover the report indicates Kenya losses over Kshs 131 billion in tax revenue every year and consequently, while seeking to reform the sector, KRA in 2012 launched tax evasion audit. However following the passage of VAT bill 2013, income tax structure was reviewed and it scrapped tax exemptions to prevent revenue leakage while reducing budget deficits .To demonstrate further tax reforms in Kenya, in 1986, when there were growing budget deficit, the government approved tax modernization programme (TMP) in which it sought to increase tax base and in 1987 adopted the budget rationalization programme to control public spending.

1.1.1 Value Added Tax Reforms

A value-added tax (VAT) is a form of consumption tax. From the perspective of the buyer, it is a tax on the purchase price. From that of the seller, it is a tax only on the value added to a product, material, or service, from an accounting point of view, by this stage of its manufacture or distribution. The manufacturer remits to the government the difference between these two amounts, and retains the rest for themselves to offset the taxes they had previously paid on the inputs. The purpose of VAT is to generate tax
revenues to the government similar to the corporate income tax or the personal income tax.

VAT reforms in Europe are designed so that collection could improve cross-border compliance for business Spenser (2012). At the end of 2011, the EU published a communication on the future of the VAT system across member states. The aim of the proposal is to reduce collection and compliance costs, provide flexibility for member states and protect against fraud. It also seeks to reduce the burdens for businesses, thereby increasing the competitiveness of the EU. The Commission has identified various questions for consideration, such as how VAT should be accounted for on cross-border transactions, whether reduced rates are still needed, how to minimize administrative burdens and how to combat fraud.

China’s value-added tax contributes with a large percentage to China’s annual tax revenue Xiong(2013). One of the most comprehensive reforms is the VAT reform, which has been initiated in January 2012 in Shanghai and expanded nationwide on August 1st of this year. In terms of indirect taxation the VAT was converted from a production-based tax into a consumption-based one. The production-based tax explicitly prohibited the deduction of the input VAT on fixed assets, which made the tax base broader than it otherwise would have been. Since the reform in 1994 there was a split system of turnover taxes. The coexistence of business tax and VAT forced taxpayers to pay VAT for their manufacture revenue and business tax for their service providing income. Since business tax does not provide credit for input tax and is imposed repeatedly for each transaction, it
is accused of a cascading taxation and of bringing overburden to service industries. To create a level playing field for all economic sectors, and especially to promote the development of a modern service industry, the reform of combining VAT and business tax has been initiated.

1.1.2 Revenue Collection

Revenue collection is the act or process of getting money received from taxation, fees, fines, intergovernmental grants or transfers as well as any sales made for the government. Tax collection has grown by 13.2% in the last financial year exceeding the target set by treasury. KRA has collected 800 billion in the 2012/2013 financial year against 707.4 billion collected in 2011/2012.

Revenue collection was boosted by strong performance in medium and small taxpayers as well as domestic taxes department that has posted growth rate of 19.9% and 17% respectively. According to Mr Njirani the commissioner, revenue collection was dampened by macro economic dynamics and low performance in key collection categories thus having a negative impact on revenue collection. Enactment of the VAT Act 2013 was important to enhance revenue collection to attain the set target of 973.5 billion for the year 2013/2014 to fund the 1.6 trillion budget.

1.1.3 VAT Reform and Revenue Collection

Most sub-Saharan countries face a dilemma with respect to taxation: There is an urgent and obvious need for more revenues to enable resource poor states to provide and
maintain even the most basic public services.; The reality is, however, that those with political power and economic ability are few and do not want to pay tax; Moreover, those without political power are many, have almost nothing to tax, and do also resist paying taxes. Fjeldstad & Rakner (2003) avers that the challenge for taxation is to raise domestic revenues from consenting citizens in poor and increasingly open economies. Elected governments in African countries are therefore facing hard choices about taxation. These decisions will most likely have profound impacts on the future of democratization itself and on public service provision. They will also have considerable implications for the politics and sustainability of aid.

Taxation is central to the current economic development agenda. It provides a stable flow of revenue to finance development priorities, such as strengthening physical infrastructure, and is interwoven with numerous other policy areas, from good governance and formalizing the economy, to spurring growth. Fundamentally, tax policy shapes the environment in which international trade and investment take place. Thus, a core challenge for African countries is finding the optimal balance between a tax regime that is business and investment friendly, and one which can leverage enough revenue for public service delivery to enhance the attractiveness of the economy.

1.1.4 VAT Reform and Revenue Collection in Kenya

Kenya’s tax system has undergone more or less continual reform over the last twenty years. On the policy side, rate schedules have been rationalized and simplified, a new
value-added tax introduced, and external tariffs brought in line with those of neighboring countries in East Africa. At the same time, administrative and institutional reforms have taken place. Most notable among these was the creation of the semi-autonomous Kenya Revenue Authority (KRA) in 1995, which centralized the administration of tax collection. Eissa & Jack (2009) From independence in 1963 until the early 1980s, public spending in Kenya was financed through a somewhat uncoordinated set of taxes and fees inherited from British rule and supplemented by foreign aid inflows. The KRA centralized tax collection activities which had previously been undertaken by departments in the Ministry of Finance Njoki (2012). Over the last ten years, the KRA has adopted internal management reforms aimed at combating corruption among revenue officers and improving taxpayer services.

In Kenya, taxation remains the single largest source of government budgetary resources. Between 1995 and 2005, tax revenue made up 80 % of total government revenue (including grants). In the last five years, the contribution of tax to total government recurrent revenue (excluding grants) has averaged 93 %. Compared to direct taxes, indirect taxes contribute a greater share of overall tax revenues.

In the 2009/10 tax year, the highest tax contribution came from VAT followed by Personal Income Tax and then Corporate Income Tax. Since the formation of the KRA, the ratio of tax revenue to GDP has gradually climbed from 14 % in 1995/96 to 22 % in 2009/10.14 This current ratio of 22 % is relatively high compared to most of the other countries in the region. Between 1994 and 2003, Uganda reported an average tax to GDP
ratio of 11.1 % and in Rwanda it was 9.2 %.15 Tax to GDP and corporate income tax ("CIT") to GDP ratios for the period 2005 to 2009 (for Kenya). The treasury estimates the contribution of large taxpayers to total tax revenue to be about 75 %. This applies to both direct and indirect taxes Pwc (2010).

1.2 Research Problem

This study seeks to examine relationship between tax reforms and revenue collection. Despite contributing to the growth of the economy, VAT legal policies present difficulties in administering and comply among KRA and tax payers. Moreover it is this complexity that has created loop holes resulting in significant revenue leakages.

Previous studies such as James and Asiweh (2012) observes that tax policies are continually subjected to pressure and changes which most times does not guarantee outcome that are in line with the overall goal. Unfortunately, most policy changes are without adequate consideration of the taxpayers, administrative arrangement and cost plus the existing taxes. This has hindered the effective implementation and goal congruence of a nation’s tax system. Lack of statistical data hinders tax authorities in determining the tax level to be generated from the economy, and from which tax type to collect more revenue (coefficient of taxation). A sound tax system provides the opportunity for real income, saving and investment for accelerated economic growth, and minimizes price distortions that would help reduce the impacts on the private sector development.
Republic of Kenya (2013) argue that although VAT is a consumption tax, in practice some of the cost is likely to fall directly on business. It is a tax purely on consumption only when businesses are able to shift the tax fully on to the final consumers in the price of their products. If businesses are unable to do this, it reduces their profit margins and, in consequence, this may hinder the growth of the private sector.

According to Naibei et al. (2012) information available indicates that non-compliance among business firms is critical and therefore is the greatest challenge towards realization of revenue collection targets by tax authorities. Administrative compliance refers to compliance with administrative rules of lodging and paying taxes on time. Technical compliance involves computation of taxes payable in accordance with the tax laws and paying the right amounts of tax.

Studies by Moses & Eliud (2003) illustrate a shift from taxes on international trade to taxes on domestic goods and services. Value added tax (VAT) has become the primary source of revenue, generating about two-thirds of domestic taxes on goods and services. VAT is an indirect tax on consumption and therefore has less adverse impact on investment and exports. In the 1988–1994 periods, VAT was the most important tax, constituting 37% of total tax revenue. However, this fell to about 28% in fiscal year 2000/2001. Since VAT relies heavily on proper recording, the willingness of traders to avail their accounts to the scrutiny of the tax authorities is crucial.
1.3 Objectives of the Study

To establish the effect of value added tax reforms on revenue collection at Kenya revenue authority in Kenya.

1.4 Value of the Study

Tax reforms are very important in any economic growth across governments in the world and in particular Kenya. Specifically, it addresses the problem of low economic growth by cutting corporate tax rates, reducing individual income tax rate on non-corporate business. In a press statement on implementation of VAT Act 2013 in 6th Sept 2013 Kenya Revenue Authority commissioner General J.K Njiraini observed that the new tax law was meant to improve business climate comprehensive. Further he acknowledges that reforms of the value added tax framework were one of the major tax reform initiative since VAT Act was enacted 1989. Therefore the goal of this study is to examine relationship between tax reforms and revenue. The study will add more literature into the topic of tax reforms and revenue collection.

By highlighting challenges faced by tax authorities, the study seeks to help them by providing suggestions aimed at improving the sector, tax reform plays a critical role in the economy.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

Perhaps as a result of major economic and social upheavals, governments have undertaken tax reforms to increase its tax base by raising more revenue. In this section, the study seeks to discuss theoretical framework utilized, critical review of past literature related to tax reforms and revenue collection as well conceptual framework adopted by the study.

2.2 Theoretical Framework

In the examination of relationship between tax reforms and revenue collection, this study combines three theories: The Keynesian Economic Theory as put forward by Alan S. Blinder in an article “The rap of monetary policy and secondly rational choice theory” Scott (2000). This theory is attributed to John Maynard Keynes who’s most influential work, *The General Theory of Employment, Interest, and Money*, was published in 1936. Taxes are levied to raise revenue for the government expenditure Neumark (2013). Absolutely there is no argument about this understanding but concerns arise regarding implementation of tax policies especially when it’s low. However, taxes differ from other revenue in that they are compulsory levies and unrequited. Overall, having said that, this study in the following sections attempts to offer some explanation on the selected theories and on how it relates to the topic.
2.2.1 The Keynesian Economic Theory

To start with the study begins with Keynesian Theory Blinder (2008). According to Keynesian economic theory the aggregate demand is influenced by a host of economic decisions which at times tend to behave erratically. Blinder (2008) observes that public decisions include monetary and fiscal such as spending and tax policies. This theory believes in government’s that are aggressive in seeking to stabilize the economy based on value judgment has the capacity to improve the economy. Application of this theory was evident during massive US tax cut of 1981 and 1984 in which real GDP growth was unaffected.

Keynes provided both a specific rationale for government's taking a bigger role in the economy and a more general confidence in the ability of government to intervene and manage effectively. Despite Keynes's fascination with uncertainty and his speculative talents in the marketplace, Keynesians deemed government knowledge to be superior to that of the marketplace.

2.2.2 Rational Choice Theory

As mentioned earlier in another part, this study also utilizes rational choice theory. Based on the economic model, rational choice see social interaction as a process of social exchange and according to this view, people are motivated by wants or goals that express their preferences (Scott, 2000). The explanation that economic action is based on rewards and punishment in which action is motivated by pursuit of “profitable” balance of
rewards over costs. For instance in USA, if one does not file tax returns by the due date, the net effect is a 5 percent month’s penalty up to 25 per cent on the amount shown on the returns (Portfolio and Block, 2012). Consequently, tax evasion has negative effect on the society and can harm the economy in many ways. In Republic of Slovenia, writes Tijana Selin sek in an article “The penalization of Tax violation law and criminal tax offences in Slovenian law” giving false information to tax authorities and failure to declare taxes are punishable by imprisonment of up to a maximum of 3 years (Selin sekka, 2004).

As in the case of most of the countries punishment of tax evasion is thought to act as deterrence yet still many countries face the challenges of tax revenue collection. For many, tax evasion has to be dealt with robustly all the time. But in a recession, when ordinary law-abiding tax payers are suffering real hardship, the need to deter, detect and prosecute those who evade tax is greater than ever. In many countries the level of deterrence is too low to explain the high degree of tax compliance. Moreover, there is a big gap between the amount of risk aversion that is required to guarantee such a compliance and the effectively reported degree of risk aversion. For example in Switzerland the relative risk aversion varies between 1 and 2, but a value of 30.75 would be necessary to reach the observed level of tax compliance of 76.52 percent Frey & Feld, (2002).
2.2.3 Compliance Theory

At the broadest level, questions of compliance are questions about behavioral motivations. What leads a state, firm, or individual to act in compliance with laws? March & Olsen (1998) divided the basic logic of human action into the logic of consequences and the logic of appropriateness. The logic of consequences” views actors as choosing rationally among alternatives based on their calculations of expected consequences, whereas the logic of appropriateness sees actions as based on identities obligations, and conceptions of appropriate action. As it will be shown in the following sections, tax reforms is undertaken after tax authorities feels there is a shortfall from tax revenues.

Tax policy should be guided by the general principles of neutrality, equity, and simplicity. Recent attempts at tax reform have given due consideration to tax preferences such as incentives, credits, tax reliefs, tax holidays, exemptions, deductions and special treatments. On the other hand, some tax reformists argue that such tax preferences and subsidies may push small businesses into the informal sector due to the exceptional treatment given to large or well-connected businesses. Instead, tax credits and investment allowances (with suitable safeguards to minimize dangers), and accelerated depreciation are preferred instruments of advanced tax policies. There is an increasing trend towards the abolition of tax exemptions/privileges from tax laws and their replacement with reduced tax rates or the application of flat tax rates. Taxpayers have limited ability to keep accounts. As a result, governments often take the path of least resistance,
developing tax systems that allow them to exploit whatever options are available rather than establishing rational, modern and efficient tax systems.

2.3 Determinants of Revenue Collection

2.3.1 Tax rate structure

Multiple rate structure is inherently complex, but yet, many argue for it on both efficiency and equity grounds. The efficiency argument hinges on Ramsey rule applied to consumption taxation. (Le, 2003). The rule specifies that to minimize dead weight loss, tax rate on a good should be set inversely proportional to the good’s own demand elasticity. It implies that the rates should be differentiated across different groups of goods and services of various demand elasticities. On the other hand, supporters of a multiple rate structure on the equity ground would argue that tax rate differentiation is needed to mitigate the regressivity of a tax: lower rates must be applied to the goods and services consumed primarily by the poor. In practice, however, a multiple rate structure poses a great challenge to the tax compliance and administration.

A VAT with multiple rate structure requires firms to keep separate records for different purchases. This is, in turn, costly for auditing (more records to be checked; more incentives and opportunities for firms to misclassify goods) and is cumbersome for application of the self-assessment (complex for taxpayers to comply; and hard for tax administration to detect fraud). In general, a more complex VAT would require tax administration to collect more information to determine the tax liabilities and
refunds. (Tait, 1988).

2.3.2 Inflation

There has been concern that with the introduction of the VAT, a broad-based consumption tax, all businesses including exempt firms raise their prices at the rate of the tax and thereby trigger long-lasting inflation. Experience of countries adopting the VAT shows this concern is unfounded, however. It indicates that the VAT is not inflationary, even though in some countries such as Japan and Denmark, the VAT resulted in once-and-for-all increase in the general price level (Tait, 1991). If the VAT is revenue-enhancing, it will help the government pursue tight monetary policy, and then the VAT may even exert downward pressure on inflation—in this case, the VAT is deflationary rather than inflationary.

While the VAT may lead to a one-time increase in prices, it is not the case empirically that VAT inevitably, or even usually, leads to continuing inflation. None of this implies that the VAT would unilaterally solve the country's fiscal problems; nor would it be painless. Nevertheless, the VAT is a relatively attractive choice, given the need to close the fiscal gap and the other options for doing so (Gale and Harris, 2011). Although the VAT is non-inflationary or even deflationary, it is critical to consider the timing in introducing VAT. Practical experience indicates that the VAT should not be introduced when inflation is rising; otherwise, the VAT would be wrongly perceived as inflationary and become a hard sell to the public (Le, 2003).
Most countries with a Value Added Tax follow the "European model," whose key features are a consumption base; tax credits based on invoices; a single rate rather than multiple rates; a single, relatively high threshold regarding turnover; a broad base with minimal exemptions to avoid distortion of purchase (input) decisions and to provide transparency; use of the destination principle (Devereux, 1996) where by exports are zero rated and imports are taxed; and the timely provision of input credits for the purchase of capital goods (Ebrill, Keen, Bodin and Summers, 2002). Most tax practitioners also favor a VAT with a single rate and with no exemptions, largely on the grounds that this reduces evasion and makes administration and compliance cheaper and easier (Agha and Haughton, 1996).

2.3.3 Gross Domestic Product

The studies that have measured the impact of GDP on tax revenues include Wildford and Wildford (1978a) who estimated income-elasticity and buoyancy of the tax revenue in Central America for the period 1955 to 1974, using an exponential tax revenue function. The study found that income elasticity of the tax revenue was less than unity. This suggested that the tax structure was stable and therefore tax revenue grew less than proportionately in response to growth in income.

2.3.4 Age of Tax

Mankiw et al (2009) studied Optimal taxation in theory and in practice and found that the theory of optimal taxation has yet to deliver clear guidance on a general system of history-dependent, coordinated labor and capital taxation for a realistically-calibrated
economy. Instead, it has supplied more limited recommendations. One proposal is to use average income over the life-cycle as a basis for taxation. A more recent example is that, following the argument for regressive capital taxes, disability insurance (and perhaps other social insurance programs) ought to be asset-tested. Asset-testing prevents individuals from claiming these benefits when, optimally, they should not, because they are actually supporting their consumption with oversaving from earlier in life. One element of history-dependent taxes is straightforward to implement but nevertheless has the potential for large benefits: making taxes a function of age. Age dependence allows the tax system to respond to the predictable evolution of abilities over the life-cycle. Old VATs raise significantly more, all else being equal, than do new.

2.4 Review of Empirical Studies

Mokua (2012) carried out a study to investigate the impact of tax reforms that have been undertaken in Income tax, Excise duty, Import duty and sales/Value Added tax on revenue productivity. The study sort to specifically estimate the effect of tax reforms on buoyancy of Income tax and Value Added tax, as well as estimating the effect of the reforms on elasticity of the tax system. Published secondary data was used to analyze the relationship between tax reforms and revenue productivity and before, after piecemeal/policy and during the comprehensive reform buoyancy and elasticity were estimated using regression analysis. The regression result showed that total tax in Kenya was inelastic during the three periods, but it was buoyant during the pre-reform and piecemeal reform periods.
In spite of the good performance of income tax as a result of reforms, further reform needs to be done particularly on the inelastic value added tax. These reforms include: reduction of rates and exemptions, increasing the number of tax collectors, imposing tougher penalties for those found guilty of evasion, strengthening audit skills, taxation of absentee landlords and income from rental houses.

Muriithi & Moyi (2003) carried out a study to analyze the productivity of Kenya’s tax structure in the context of the tax reforms. The findings suggest that tax reforms had a positive impact on the overall tax structure and on the individual tax handles, even though the impact of the reforms was not always uniform. The reforms had a bigger impact on direct taxes than on indirect taxes, suggesting that revenue leakage is still a major problem for indirect taxes. The better responsiveness of direct taxes can be attributed to the relative effectiveness of the reforms in direct taxes, which not only made the tax system simpler but also reduced avenues for evasion and corruption. Such reforms include the introduction of PIN, lower rates, reduction of exemptions and a shift away from multiple rates across many categories.

It is worth noting that for direct taxes and import duties with base-to-income elasticity lower than unity, the tax authorities had few options for improving the coefficients. The growth of these bases is a macroeconomic problem outside the control of the tax authority. Increasing formal imports of dutiable goods and perhaps improving the growth of wages could enhance proxy bases of these taxes.
Adam & Johnson (2012) in a study in the UK that focuses on reforms that could increase national income in the medium term, not on possible short-term stimulus to promote economic recovery. Emphasis that economic growth (i.e. increases in national income) and increases in welfare are not synonymous. There are many welfare-enhancing reforms to the tax system which should be pursued even if they don’t promote growth. And there are growth-promoting but welfare-reducing reforms which should not be pursued. In general, a tax system that is significantly more neutral than the current one would do less to distort economic activity, would involve lower administration and compliance costs, and would increase both national income and welfare. The scope for reform in this direction is substantial.

There exists some anecdotal evidence about the implementation of tax reforms to enhance tax compliance, especially in African countries. Generally tax reform deals with welfare improvement by making marginal changes in tax design and structure in fact there has been a growing concern over mobility of capital across international frontiers, Europe countries. For example Scandinavian countries such as Norway have operated a dual tax system in which all personal and corporate income is taxed at 28% OECD (2006). Taxpayers who are mistakenly accused to cheat on their taxes may perceive the intervention by the tax office to be controlling. Therefore their tax morale decreases or even erases. Similarly, increasing monitoring and penalties for noncompliance, individuals notice that extrinsic motivation has increased, which on the other hand crowds out intrinsic motivation to comply with taxes.
In Kenya the main attention on tax reforms has been on trade liberalization and transitioning from sales tax to value added tax Cheeseman and Griffiths (2005). Moreover attention has shifted to ensuring KRA have the capacity to administer. Russians tax reform of 1992 resulted to positive changes in the revenue structure since it matched that of other developed nations Dmitry (1995). There is evidence to suggest that tax reforms can cover increases or decreases in tax rate or changes in tax base the indexation of major tax constitutes tax reforms as does a radical change in administrative practices and procedures. Indeed, based on previous studies the current tax reforms have been fueled by almost universal tax reforms of 1980s. In fact some critics suggest that the tax reforms renewed not just the tax regime but seemingly political dynamics that sustained it. The USA introduced major tax Act in 1986 and perhaps interestingly these tax reforms reduced the top tax rated Devereux, Griffith & Klemn (2002), Slemrod, (1992).

When examined from investment point of view previous studies by (Bruce,2000) reveals that an increase in the tax rate on entrepreneurial income increase the probability of many entrepreneurs By this, it means there will be increased income tax through self-employment different previous study who looked at tax payers aged between 25 years and 54 years the current study will examine most possible tax payers above as provided by KRA.
In addition, Feldstem, Stemrod & Yitchaki (1980) in their analysis have found that a reduction in tax rate applied on capital gains increase sales of capital assets and in turn stimulate an increase in tax revenue. However their study inspired a growing debate but what is more important is that its supported claims that capital gains cut means little or no impact of taxes on revenue cost Slemrod (1992). Based on various analysis, one wonders why there was tax reforms. Possibly, this could be as result of extreme discounted among most countries around the world on the existing tax system.

While writing for Standard newspaper Franking Sunday in an article “Tax evasion hurting poor countries hardest reports” points out that in Kenya the existing tax codes have been faulted several times by financial experts and the process of altering the same and introducing fax tax policies has so far remained a pipedream. At the same tax reform in Brazil helped collect tax over 36 per cent of the GDP and this was one of the world’s highest percentages (Roberto, 2003).

Income tax progressivity at the beginning of 20th century was moderate by contemporary standards. Value Added Tax is one of the most stable and effective taxes in the world market economy. (Dmity, 1995). In fact the system of collecting this tax is relatively simple and inflation proof and is difficult to evade because payments and the collection of the tax are a continuous process in all stages of movement of goods and services. Yet many governments around the world still lose huge taxes through tax evasion. This is evident in some developing economies for example in South Africa customs side of revenue had been heard to have fewer staff in the whole country (Andile, 2004).
Moreover this scenario is reflected in Kenya, where tax authorities KRA sought to improve employee work environment to enhance staff morale, efficiency and effectiveness with the aim of achieving revenue targets KRA (2013). It is important to note that to some extent, poor delivery, results from inadequate or lack of proper work environment for tax collectors. In its 5th corporate plan, KRA acknowledges that 45 per cent of stall housing are in habitable condition.

(Carlos Lambarri,1995) while examining fiscal policy in Europe points that lack of legislation on fiscal crime affects governments efforts in convincing the taxpayers that tax system is fair and a hard time achieving the positive knock on effect Lambarri (1995). The challenge facing public authorities is to set up a fiscal policy which can reduce tax burden. In economic the terms fiscal policy is the use of government policies to influence the economy (Larc &Martin ,2009).

Empirical evidence shows that competition reduces tax revenue Abed and Gupta cited by Imam and Jacobs, (2007). Accordingly public finance literature has tendered to offer recommendations to raise tax revenues and this include institutions reforms. However completion sometimes does not involve taxpayers and may not necessarily affect tax revenue directly, business operation in most countries tends to take long and hence encouraging corruption cartels.
Previously literature have shown that tax system that seeks to facilitate growth need to reduce cost of operation in formal sectors while increasing cost of operating in informal sector Bird (2008) recognize the value of having an effective revenue collection strategy. It is important to note putting in place effective revenue collection measures plays a critical role in enhancing tax and revenue collection. Accordingly accounting for revenue loss has been of great concern among tax authorities. One critical pre-requisite for sustainable market economy is perhaps adequate financial resources therefore, in addition to supplementing local resources through establishing central–local revenue transfers many governments around the world are searching for ways to mobilize and improve revenue sources, indeed in enhancing its revenue collection government adopt various strategies.

One of the questions that require answers: is when tax is more than a legal concept. Recent tax management has shown that most government prefers to deal with their tax to avoid or reduce tax burden resulting from extracting fines International Tax Review, (2008). Kelly (2000) has observed that tax revenue depend on both tax policy choices and administrative efficiency. More tax policy choices affect tax base definition, exemptions valuation standards, tax rated and collection and enforcement provisions where tax administration choices affect the fiscal cadastre completeness, property valuation accuracy To demonstrate further based on analysis of recent research, it is worth to mention that regardless of tax policy choices government s must ensure that all property is captured on the tax rolls.
(Gideon & Alouis, 2013) carried out a study in Zimbabwe to review national revenue collection in Zimbabwe, particularly interrogating major revenue sources, revenue collection strategies and soft spots for revenue leakage. The findings indicate that the revenue collection sector has over the decades gone through milestone reforms, notable ones being the establishment of a sole national revenue authority in 2001, the shifting from cumbersome Income Tax Return Forms to Final Deduction Systems, the adoption of VAT in 2004 and Toll Gate systems in 2009. The discovery of diamonds in 2006 (with a potential to generate US$2 billion dollars a year and even supply 25% of the world demand) was an added boost which is set to broaden national revenue generation and collection. There is need to review the structural and operational frameworks governing the national revenue authority, tighten treasury control over all national revenue sources, strengthen legislative oversight and the public audit functions, plug loose areas in income tax frameworks as well as instituting transparency in national revenue remittance processes.

OECD (2011) carried out a study in North East Brazil and outlined the challenge for the design of any tax system is the challenge provided by the trade-off between equity, efficiency and growth. While taxation is necessary to finance public goods and redistribute income, the process through which a government collects tax can entail substantial costs in terms of efficiency, challenges to increasing the tax base, particularly in low income countries. First, structural factors often limit the number of taxpayers and the tax base. These include: a large share of (subsistence) agriculture in total output and employment; large informal sector and occupations; many small establishments; small
share of wages in total national income; and small share of total consumer spending made in large, modern establishments. Thus a main challenge of policy-makers is to achieve a pro-poor widening of the tax and the number of taxpayers. How tax is raised matters, as well as how much. The challenge is to tax a larger number of citizens and enterprises more consensually. This is not an easy task. The dominant approach to improving tax collection has been to focus on enhancing administrative capacity.

Whereas much work in the tax compliance literature has concentrated on standard factors as reward, audit, penalty, legal framework, and tax rate, it is useful to evaluate alternative policy instruments aimed at improving revenue collection in the country. In many emerging nations, tax administrations are, at best, only sound. While improving them isn’t easy, it is critical, especially in emerging markets. Countries that fail to capitalize on the benefits of rapid economic growth are missing a tremendous opportunity to improve the quality of life for their citizens. For tax evaders, rewards could be more effective than punishments for eliminating undesired behavior or for motivating desired behavior because it is perceived as supporting revenue collection (Nutin & Greenwald, 1968). It could be argued that regulations which prevent free riding by others and establish fairness and equity help preserve tax morale. In contrast, receiving certain types of rewards for being a good taxpayer may be perceived as supporting and tends to bolster and raise tax morale and perhaps interestingly, a declining tax receipts and cuts in most countries and state funding are creating budget shortfalls, even for routine operations and mandated services and programs. Yet the two most obvious ways to address this challenge raise taxes or cut services aren’t necessarily feasible. While taxation is necessary to finance
public goods and re-distribute income, the process through which a government collects tax can entail substantial costs in terms of efficiency (Grabowski, 2008).

2.5 Summary of Literature Review
The main aim of this study is to examine the relation between tax reforms and revenue collection and it starts by looking at the theories utilized in the understanding tax reforms behavior in relation to revenue collection. To start with, the chapter presents theories such as Keynesian theory which looks at the decisions on monetary and fiscal policies, rational choice theory explaining tax administration involves some form of interactions and lastly the study used compliance theory in which it helps understand why firms or individuals comply with the law.

In addition coercive enforcement measures are usually more readily available than at the international level; indeed, many theorists mark the absence of formal sanctioning authority at the firm level as a critical distinction laws. In this chapter also, variables discussing tax reform and revenue collection are discussed in detail, conceptual framework is presented diagrammatically and lastly the chapter concludes with a brief summary.
CHAPTER THREE
METHODOLOGY

3.1 Introduction

This section discusses various activities that constitutes the study methodology and includes research design, target population and sampling methods. In addition, it further examine data collection instrument as well as data analysis.

3.2 Research Design

This study adopted a descriptive research approach to carry out the study since it utilizes elements of quantitative research methodologies. A descriptive research design attempts to describe or define a system, often by creating a profile of a group of problems, people or events, through the collection of data and tabulation of the frequencies on research variables or their interaction within the research period of interest which is a period of four years (Cooper & Schindler, 2006). Descriptive approach is also justified since it is efficient in collecting large amounts of information within a short time. Such data is more reliable and up-to-date.

Also, this research design does not permit manipulation of the variables (Bichanga & Aseyo, 2013).

3.3 Target Population

This study was carried out in Nairobi County as the central point. Country wide information on VAT is available from any angle due to the high level of ICT inte
The study targets Domestic tax department VAT section. The subjects of the study was data on Revenues generated from VAT for the last four (4) years.

3.4 Sample

For the purpose of this study, country wide data on VAT was purposively selected from KRA headquarters.

3.5 Data Collection

This study was collecting quantitative data. Quantitative research is used to quantify the problem by way of generating numerical data or data that can be transformed into useable statistics. Quantitative research uses measurable data to formulate facts and uncover patterns in research. The study collected secondary data on revenues generated by online filling, use of ITMS and VAT refund for the period 2009 to 2013. Data was obtained from KRA offices and from journals, book, and magazines.

3.6 Data Analysis

In this study, the data was analyzed using the descriptive statistics to facilitate the attainment of the research objectives. Descriptive statistical analysis enables the researcher to describe and compare variables numerically such as; mode, mean and median. It was further to use measures of variability to see how scores of each variable are spread out, and other measures of variability such as the range and standard deviation; depending on the kind of data which was to be generated from the field and methods used.
Mugenda & Mugenda (2003). The study employs Panel Data analysis - Fixed Effect using STATA version 10 for data collected from KRA covering the last four years.

To reveal the effect of VAT reforms on Revenue Collection. The estimation procedure used by (Nguyen at al, 2011) was adopted

\[ y = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \epsilon \]

Where

- \( y \) = Revenue Collected
- \( \alpha \) = Constant
- \( \beta_1 \ldots \beta_3 \) = are the loading for variable \( x \) on \( x_1 \ldots x_3 \)
- \( x_1 \) = Online filing of returns
- \( x_2 \) = VAT refunds
- \( x_3 \) = Integrated system management
- \( \epsilon \) = Error term

Assumption for the error term are according to (Heiman 1996) that the independent and dependent variables was to assume a linear relationship, and that the plotted values will assume a normal distribution mean of 0 and standard deviation of 1.

The variable online filing of returns was measured through obtaining tabulated data from KRA for the period under study and it was to show how it has contributed to revenue output.

The variable Vat refunds is measured by subtracting output tax from input tax. Excess input tax means a refund has to be made which are done after 3 months.
The variable Integrated system management is measured by taking number of transactions processed at a time and the purpose of each especially for remittances of taxes. The $y$ variable is a revenue base that represents a large number in billions of shillings and was measured using natural logarithms.

### 3.7 Data Validity and Reliability

A pilot study to pre test reliability of the research instruments will be carried out and this will provide an opportunity to detect and remedy a wide range of potential problems on research instruments. Pilot testing will help the researcher identify ways of improving the instruments. Validity determines if the research measures what its supposed to measure or how truthful the research results are.
CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

In this chapter data relating to tax revenue and specifically VAT and its relationship to reforms is analysed for the period 2009 to 2013

4.2 Data Analysis

Tax productivity for the period 2009-2013

Figure 4.2 Graph on revenue productivity for the period 2009-2013: Source, KRA2013

The diagnostic tool for the VAT performance used in this study was the efficiency ratio. Efficiency ratio (E) is defined as the share of the VAT in GDP divided by the
standard VAT rate (Ebrill et al, 2001). In Kenya, VAT was perceived as the tax of the future in line with the country’s objective of reducing reliance on direct taxes as well as diminishing the role of trade taxes. In this respect, the performance of VAT becomes an important issue for study. In general, the higher the Efficiency Ratio, the better the performance of the VAT. The IMF survey shows that small islands and members of the European Union (EU) have the most effective VAT systems: their estimated efficiency ratios attained at 48 and 38 percent respectively, while the worldwide average was 34 percent (Le, 2003).

Figure above shows VAT productivity from the fiscal year 2009 to 2013. An efficiency ratio of 44% in 2009/10 implies that if the standard VAT rate is increased by one percent point, the shares of the VAT revenues in GDP is expected to increase by 0.44 percent. Productivity has continued to increase in the preceeding years from 45% in 2010/11, 52% in 2011/12, 56% in 2012/13, 58% in 2013/14 it has however remained above 34% in the last five years of this study, thus it is within worldwide average.
4.2.1 Online filling of returns and revenue collection

Figure 4.2.1

![Graph showing domestic revenue collection](image)

The graph shows an increasing trend in the revenues contributed through online filling showing an increase from 33% in 2009/10, to 37% in 2010/11. This contributes a 13.3 to 16 million shs in revenue in the first two years and has kept on increasing to 38% in 2011/12, 39% in 2012/13, 40% in 2013/14. On average increase in revenue for the five years amounted to 5 million. In the three proceeding years there’s been a constant 1%
increase in revenue each year showing that online filling of returns is beneficial to a country's tax revenue.

4.2.2 Effects of integrated management system on revenue

![Domestic Revenue Collection](image)

Figure 4.2.2 integrated management system source, ministry of finance, 2013

There is an increase in revenue for the years 2009/10-2010/11 (25%-30%) This shows a 10.4 to 13 million shs. This is followed by a constant range 33% for the years 2011-2012 and a slight increase in 2013 of 34%. An average of 4 million is has been generated for the five years from use of ITMS. The results show that use of ITMS gives above slightly average revenues thus its use needs to be enhanced to generate more revenues.
4.2.3 Effects of VAT Refunds on Revenue

![Diagram showing Domestic Revenue Collection vs VAT Refunds]

Figure 4.2.3 Vat Refunds: source, Ministry of Finance 2013

The figure shows the effect of VAT refunds on revenues. There has been a decline in its contribution to revenue from 41% in years 2009/10 to 33%. The declining trend has proceeded in the following years from 28% to 26% and finally 25% in the years 2013/2014. Amounts paid out were 16.4 to 14.1 million to set off refunds. This shows that refunds have a negative effect on revenue.

4.2.4 VAT Revenue Model

As shown in Graph 4.2 above, VAT revenue has never been constant; it has been increasing over the period under review. We thus seek to come up with a model which
will explain the relationship between VAT revenue and VAT reforms, by regressing their values across the given period.

**Regression Analysis**

**Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>1.000</td>
<td>.998</td>
<td>.996</td>
<td>.852</td>
</tr>
<tr>
<td>X1</td>
<td>.998</td>
<td>1.000</td>
<td>.999</td>
<td>.819</td>
</tr>
<tr>
<td>X2</td>
<td>.996</td>
<td>.999</td>
<td>1.000</td>
<td>.812</td>
</tr>
<tr>
<td>X3</td>
<td>.852</td>
<td>.819</td>
<td>.812</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>.</td>
<td>.000</td>
<td>.000</td>
<td>.034</td>
</tr>
<tr>
<td>X1</td>
<td>.000</td>
<td>.</td>
<td>.000</td>
<td>.045</td>
</tr>
<tr>
<td>X2</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
<td>.048</td>
</tr>
<tr>
<td>X3</td>
<td>.034</td>
<td>.045</td>
<td>.048</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Y</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>X1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>X2</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>X3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

The correlations table displays Pearson correlation coefficients, significance values,
and the number of cases with non-missing values (N). The values of the correlation coefficient range from -1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative). The absolute value of the correlation coefficient indicates the strength, with larger absolute values indicating stronger relationships. The correlation coefficients on the main diagonal are always 1, because each variable has a perfect positive linear relationship with itself. The larger r, ignoring sign, the stronger the association between the two variables and the more accurately you can predict one variable from knowledge of the other variable. At its extreme, a correlation of 1 or -1 means that the two variables are perfectly correlated, meaning that you can predict the values of one variable from the values of the other variable with perfect accuracy. At the other extreme, an r of zero implies an absence of a correlation - there is no relationship between the two variables. This implies that knowledge of one variable gives you absolutely no information about what the value of the other variable is likely to be. The sign of the correlation implies the "direction" of the association. A positive correlation means that relatively high scores on one variable in this study, there is a strong positive correlation between online filling of returns and integrated systems which was statistically significant ($r = 0.819, p = 0.045$) and the two variables are linearly related thus one variable can be predicted from the knowledge of the other variable.
### Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>57.300</td>
<td>16.0660</td>
<td>5</td>
</tr>
<tr>
<td>X1</td>
<td>21.980</td>
<td>7.4858</td>
<td>5</td>
</tr>
<tr>
<td>X2</td>
<td>18.260</td>
<td>6.6598</td>
<td>5</td>
</tr>
<tr>
<td>X3</td>
<td>16.760</td>
<td>2.0082</td>
<td>5</td>
</tr>
</tbody>
</table>

### Variables Entered/Removed

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X3, X2, X1&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.</td>
<td>Enter</td>
</tr>
</tbody>
</table>

<sup>a</sup> All requested variables entered.

<sup>b</sup> Dependent Variable: Y
The objective of the study is tested by regressing an index of VAT revenue on a number of explanatory variables using data for five fiscal years (2009/10 to 2013/14). The error term, \( E_i \), is arrived at by taking the difference between expected and actual VAT revenues for a given fiscal year, \( i \). The regression results are shown in Table 4.2.4 below, where the dependent variable is the VAT Revenue collected, and the independent variables are the integrated system, online filling of returns and VAT refunds. For the regression results to be meaningful we have to assume that taxpayers have substantially the same reaction to changes in the independent variables.

**Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000a</td>
<td>1.000</td>
<td>.999</td>
<td>.5690</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X3, X2, X1

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1032.136</td>
<td>3</td>
<td>344.045</td>
<td>1.063E3</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.324</td>
<td>1</td>
<td>.324</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1032.460</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X3, X2, X1
The 95% confidence intervals for the slopes ($\beta_i$) of the regression line that relates the predictors to VAT Revenue are obtained and tested. Each $\beta_i$ tells us the average change we can expect in $Y$ given a one unit change in independent variable $x_i$, all of the other $x_j$'s held constant. For instance, we are 95% confident that the slope for standard rate is at 56.90. In other words, we are 95% confident that for every single-unit increase in standard rate, the average VAT Revenue increase by 56.90%.

$Y = -0.332 + 3.054X_1 - 1.212X_2 + 0.755X_3$

Standard error = 0. The 95% confidence intervals for the slopes ($\beta_i$) of the regression line that relates the predictors to VAT Revenue are obtained and tested. Each $\beta_i$ tells us the average change we can expect in $Y$ given a one unit change in independent variable $x_i$, all of the other $x_j$'s held constant. For instance, we are 95% confident that the slope for standard rate is at 56.90. In other words, we are 95% confident that for every single-unit increase in standard rate, the average VAT Revenue increase by 56.90%.
4.3 Summary and Interpretation of findings

The study evaluated the various variables that the researcher picked out to check their relationship with regard to their effects on revenue which are integrated management system, vat refunds and online filling of returns.

The tax productivity for the five years has been increasing since the implementation of reforms. This is seen by the 44% efficiency ratio in years 2009/10 which is above the average world efficiency ratio. This indicates that the reforms have positive relationship to revenue productivity and they should be implemented in most sectors of the economy. More resources should be channeled towards the reforms which would even double the revenue.

The effects of online filling of transaction on revenue has a positive effect on tax revenue as seen by the 33% to 37% increase in revenue. This increase has gradually increased over the years upto a 40% increase in revenue in the years 2013/14. The gradual increase shows that online filling of returns has a positive impact on revenue and more information should be given to the public so that they realize how cheap it is to use the internet to file returns and they can do so at the comfort of their homes and avoid penalties for late payment.

The effect of integrated management system on revenue has a positive impact on revenue as it highlights 25%-30% increase in revenue for the first two years and an almost constant range in revenue. This shows that integrated systems have an impact on revenue and should highly used in most sectors to enhance productivity and revenue output. Checks and controls need to be established to prevent frauds and lessen mistakes.
The effect of VAT refunds on revenue has a negative effect on revenue as it shows a declining trend in revenue from 41% to 33% in the first two years and still continues to decline in the forth coming years to 28% up to 25%. The decline indicates that refunds have a negative impact on revenue. More refunds being paid out have an effect of reducing the revenue as it indicates that money is going out. To avoid a large gap in revenues to refunds being paid out in a given year refunds should not be carried forward to the next financial year.

The result of the study shows that the value of R square is 0.5690. This means that independent variables investigated in the study namely integrated management system, VAT refunds and online filling of returns has a strong significance. The regression equation appears useful for making predictions on revenues since R square of 56.9% is considered significant.

The study has identified key findings and pointed out the variables that increase revenue at an increasing rate which are online filling of returns and integrated system. The variable VAT refunds has a declining effect on revenue as it shows a declining trend in revenue indicating amounts paid out.

The study relates to a study done by Asirigwa (2011) where she looked at determinants of revenue and analysed that increase in rate of tax does not lead to increase in revenue as consumers don’t react according to how the economy wants them to but according to their purchasing power this relates to the study as VAT refunds though are seen as a reform to improvement to collecting more revenue ends up causing a decline in revenue as money is going out and its main aim is maintain the confidence of the taxpayer in respect to transparency.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

The study was geared towards finding out the effects of tax reforms on revenue in Kenya. The study involved analyzing data from secondary sources. Most of the data was obtained from KRA data base and ministry of finance. The study looked at the domestic department sectors. The objective of this study was to establish the effects vat reforms on revenue in Kenya. A Descriptive study was adopted to measure the extent of the relationship between the variables. The data collected was analyzed using regression model at 95% level of significance, while the performance of VAT was measured using Efficiency Ratio. The results of the study show that VAT revenue over the past five years has been growing and Kenya is keeping with the worldwide VAT productivity average of 34 percent. A model was developed for VAT revenue and all its variables tested.

The dependent variable is VAT revenue, and the independent variables are online filling of returns, integrated systems and vat refunds.

A 56.9% of the variation in VAT revenue is explained by the VAT reforms. The actual revenues were found to be around the line of best fit. The model was found to be useful and at least one of the predictors is useful for predicting VAT revenue. Online filling of transactions was found to be significantly related to VAT revenue collected. Previous studies by (Asirigwa, 2011) on determinants of revenue show similar findings.
5.2 Conclusion

This study concludes that online filling of returns, integrated systems and vat refunds have a directly or indirectly influence VAT revenue. This was observed from the increase in VAT collections over the study period. The study also concludes that Kenya’s VAT productivity is normal, comparing it with worldwide results. The results of this study are consistent with similar studies in other countries. For instance, old VATs and a high range between highest and lowest nonzero VAT rates have a positive bearing on VAT revenue, all else being equal; and that the tax rate cannot be pushed too high without markedly reducing VAT revenue (Diana, 2011).

The study identifies online filling and integrated management system as the variables that increase revenue at an increasing rate. With a 56.9% level of confidence it shows that reforms if well implement would lead to increase in revenue.

From the results of the study its very clear that the reforms have boosted the countries revenue. Information on the reforms should be highly available to all citizens as this knowledge allows compliance to policies and timely filling of returns.

There should be implemented checks and controls that will enhance transparency when these reforms are conducted thus motivating the tax payers to be confident when submitting there returns and thus lessen non compliance that leads to revenue leakages as the number of people registering there returns may be high but those making the actual payments be very few since VAT relies heavily on proper recording, the willingness of traders to avail their accounts to the scrutiny of the tax authorities.
5.3 Limitation of the study

The main limitations of the study was time and resources that limited me from getting information from other counties thus concentrated on Nairobi as the central point.

The model used for the study was too complex and took a lot of time and concentration to analyses the data. The researcher would have projected the model better had I combined the use of primary data as well. This is because some variables in the model required more input other than what was extracted.

There are limited local previous studies on the same research problem. Most studies that were close were looking more at the determinants of revenue. The researcher therefore did not review as much of local studies as desired.
5.4 Recommendation

More information on reforms is needed as most citizens are not aware of any reform and this could be through posting all updated information on reforms on the kra website

Tax rates should not be adjusted without considering the effect it will have on the consumer as any reform made to adjust the rates affects revenue negatively

Kenya Revenue Authority should give public information on how they derive the revenue on the tax payers days thus creating sensitization

Kenya Revenue Authority should ensure all revenues on reforms are availed on there websites to enhance easy retrieval

Checks and controls should be implemented to allow transparency in implementation of the reforms

Independent checks should be done from time to time to find out if there is proper compliance to policies by independent parties or external auditors

Punishments should be imposed on those found to be going against the laid down guidelines

Trainings should be carried out frequently for members of staff working in this are so that they can be able to take into account any technological changes

Integrated management systems should be highly maintained by experts to avoid breakdowns that would delay operations. Also independent parties should be contracted so as to avoid conflict of interest by manipulating of systems to benefit a few individuals
5.5. Suggestion for further Research

Studies on VAT performance should be done using the C-efficiency ratio. This is the ratio of VAT revenue to consumption, divided by the standard tax rate. It uses consumption because it is a more appropriate VAT base than GDP. Various factors could be behind the upward growth in VAT revenue over the period of study.

Withholding VAT is a government requirement for the payer of an item of income to withhold or deduct tax from the payment, and pay that tax to the government. It was introduced in Kenya with effect from 1st October, 2003, as a reinforcement measure to ensure that all the VAT charged reaches the government, and was suspended on 30th June, 2011. Researchers should study the impact of Withholding VAT on VAT revenue, during the period it was in effect. Also, study should be carried out on the impact of the Electronic Tax Register (ETR) on VAT revenue, which was introduced in June 2004 to ensure that sales are properly recorded by registered taxpayers in the country and to enhance the accountability systems for VAT.
REFERENCES


Cheeseman, N. & Griffiths, R. (2005), Increasing Tax Revenue in Sub-Saharan Africa: The Case of Kenya; OCGG Economy Analysis, (.6),p30-35


OECD (2011). Increasing Revenue collection without damaging the livelihoods of the Poor. Promoting Pro-Poor Growth. p25-30


