EFFECT OF TAX POLICY REFORMS ON PUBLIC REVENUE GROWTH IN KENYA

JAMES NYAMU NYAGA

DOCTOR OF PHILOSOPHY

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Effect of Tax Policy Reforms on Public Revenue Growth in Kenya

James Nyamu Nyaga

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signature ……………………………………….. Date……………………………….

James Nyamu Nyaga

This Thesis has been presented for examination with our approval as University Supervisors.

Signature ……………………………………….. Date……………………………….

Dr. Assumptah Kagiri, PhD.

JKUAT, Kenya

Signature ……………………………………….. Date……………………………….

Dr. Kepha Ombui, PhD.

JKUAT, Kenya

DEDICATION

I would like to dedicate this Research work to the almighty God for his grace, wisdom and knowledge to carry on this academic work even with other attached responsibilities. Secondly to my beloved wife, Rael Nkirote who gave me all the needed financial and moral support to ensure that my learning was smooth throughout this period. Special dedication goes to my lovely children Christine and Duncan for their encouragement they gave me to ensure that I pushed on even when situations were unbearable.

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DEFINITION OF TERMS

Business Automation System: Automation of complex business processes and functions beyond conventional data manipulation and record-keeping activities (Organization for Economic Co –Operation and Development, 2008)

Government policies: Regulatory guidelines and procedures relating to directing or affecting taxation either directly or through some indirect effect from outside the public revenue growth which may be unintended, or even undesirable, (United States Internal Revenue Services)

Public Revenue: Government income through all sources, e.g. taxes, borrowings, fees and donations, (United States Internal Revenue Services)

Tax Administration: Management, conduct, direction and supervision of the execution and application of Government, country or state's taxation laws and related statutes (Swiss Fidel Tax Administration, 2013)

Tax Enforcement: System by which Authorities act in an organized manner to enforce taxation laws by punishing tax payers who violate the rules and norms regarding taxation (Organization for Economic Co-operation and Development, 2008)

Tax Reforms:	The process of changing the way taxes are collected or managed by the government. (Swiss Fidel Tax Administration, 2010).

LIST OF ABBREVIATIONS AND ACRONYMS

AC	-	Administrative Control
AFDB	-	African Development Bank
ARA	-	Autonomous Revenue Authorities
ASYCUDA	-	Automated System for Customs Data
BBR	-	Balanced Budget Requirement
BCL	-	Bank collection
BPS	-	Budget Policy statement
CEPS	-	Custom Excise Prevention Service
COSIS	-	Customs Oil stocks Information Systems
CSR	-	Co-operate Social Responsibility
DBM	-	Data Base Management
DFID	-	Department for International Development
DPC	-	Domestic Processing Centre
EAC	-	East African Community
ECD	-	Electronic Signature Device
EDP	-	Excessive Deficit Procedure
EIM	-	External Information Management

ETR	-	Electronic Tax Register
EU	-	European Union
FDI	-	Foreign Development Investment
FED	-	Focalized Electronic Devices
FP	-	Electronic Tax Printers
GDP	-	Gross Domestic Product
GNP	-	Gross National Product
GTG	-	Good Tax Governance
HRM	-	Human Resource Management
ICT	-	Information Communication Technology
IHRDC	-	International Human Resource Development Corporation
IMF	-	International Monetary Fund
IMM	-	Integral Management Model
IRS	-	Internal Revenue Service
ITMS	-	Integrated Tax Management System
KIPPRA	-	Kenya Institute of Public Policy Research and Analysis
KRA	-	Kenya Revenue Authority
KRATI	-	Kenya Revenue Authority Training Institute

MOU	-	Memorandum of Understanding
NARC	-	National Rain bow Coalition.
NRS	-	National Revenue secretaries
ODA	-	Overseas Development Administration
OECD	-	Organization For Economic Co- operation and Development
PAYE	-	Pay As You Earn
PC	-	Process Control
PPP	-	Payment Plans Processing
QMS	-	Quality Management Systems
RADDEX	-	Revenue Authority Data Exchange
RARMP	-	Revenue Administration Reform and modernization Programme
SARA	-	Semi- Autonomous Revenue Authorities
SARS	-	South African Revenue Service
SBP	-	Single Business Permit
SFTA	-	Swiss Federal Tax Administration
SME	-	Small Micro-Economic Enterprises
SSA	-	Sub Saharan Africa
TCA	-	Taxpayer Account

TCR	-	Tax Credit and Refunds
TIN	-	Tax Payers Identification Number
TMP	-	Tax Modernization Programme
TOT	-	Turn-Over Tax
TPS	-	Taxpayers Services
TRE	-	Taxpayer Register
TRP	-	Tax Return Processing

ABSTRACT

Kenya has been over years faced by challenges of meeting its budgets resulting to too much domestic and external borrowing. KRA has been allocated more budgetary support to enhance pay structures of revenue Officers, attract and retain professional staff as well as establishing structures for identifying and dismissing incompetent and corrupt staff. This was necessary since efficient revenue collection was seen as a means to lower Government borrowing and easing pressure on inflation and interest rates as well as increasing Government revenues to meet both recurrent and capital expenditure. This study focused on measures undertaken by KRA to bring reforms that have enhanced public revenue growth in the recent few years. Kenya's effectiveness indicators suggest that whilst the tax effort is high, there is potential to increase tax revenue collection as a percentage of GDP by reducing tax gap. The government budget estimates have grown over a period year from Ksh 508b in 2006/2007 financial year to Ksh 2.2 trillion in 2016/2017 financial year. In spite of these efforts by the government there are still a myriad of problems militating against effective and efficient tax system in Kenya and therefore this study examined the role of tax policy reforms on public revenue growth in Kenya. The specific objectives were to; to determine the effect of tax administration, effect of tax enforcement, effect of human resource revitalization and the moderating effect of business automation system on national public revenue growth in Kenya. Descriptive research design was used. The scope of the study was KRA's five (5) regional offices namely; Nairobi, Mombasa, Nakuru, Nyeri and Kisumu. The target population was 562 where a sample of 157 respondents was drawn using stratified random sampling technique. Primary data was collected using questionnaires which were both closed ended and open ended. Quantitative data was analyzed using SPSS. Descriptive statistics were used and multiple regression analysis was run to predict the role tax administration, enforcement, human resource revitalization and business automation system on public revenue growth. ANOVA test was conducted to test the significance of the overall model and a correlation analysis was used to determine the strength of relationship between the variables. The study found that KRA tax reforms influence National public revenue growth in Kenya. Tax administration reforms, tax enforcement reforms, human resource revitalization and business automation system influence the Public revenue growth in Kenya. The emphasis should be increased on improving tax administration to broaden the tax base so that existing tax rates can be reduced without affecting government revenues. There is need for a well-functioning tax enforcement system to increase tax compliance, tax audits and tax assessment. Improving Staff recruitment process, Personnel training, HR development and compensation and rewards could be a viable solution for increasing the productivity of tax in Kenya. The efficiency of business automation system in KRA should be improved and upgraded to suit both government and citizens. The research findings were expected to benefit KRA as well as other Government collection agents.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Institutional aspects of tax reform involve the Semi-Autonomous Revenue Authority Model, where traditional line departments are separated from the Ministry of Finance and granted the legal status of semi-autonomous authorities. Tax reform involves broad issues of economic policy as well as specific problems of tax structure design and administration. At the theoretical level, tax reforms are initiated either following an economic crisis or as a response to international pressure (Mahon, 2007).

Sound fiscal responsibility is central to achieving macroeconomic stability and ensuring that the benefits of economic growth. On the revenue side, the government must continue its efforts to broaden the tax base through tax policy reforms and modernization of domestic tax and custom administration (Bird, 2009). The key to successful public finance management is a matter of governance to balance the economic, managerial and political roles of public finances. When fiscal governance is poor has a little chance of succeeding the fiscal policy objectives. The Government will also pursue comprehensive civil service reforms aimed at improving the efficiency of delivery and quality of public services, improving taxation through payroll management and enhancing a regular auditing to create a further fiscal space. It is viewed that in most emerging economies fiscal governance is reflected only in how deep a country can cut into its fiscal deficit, rather promoting a better tax system to mobilize more revenue to prevent it (Djankov, McLiesh & Schleifer, 2010).

Kefela (2009) reported that few developing countries have managed to establish their tax systems in such a way as to achieve an appropriate level of revenue and to keep tax-generated mis-allocations within tight bounds. In most other countries, neither has it been possible to ensure the financing of public expenditure nor have the tax systems operated in conformity with economic policy objectives. Although there have been some changes in tax policies along the predicted lines, to date these changes on the level of collections, the composition of revenues, the convergence in tax rates have been minimal, even when present. While the economics of these changes may well be plausible, the process by which they occur seems slow, erratic, and uncertain, and disentangling the empirical evidence remains difficult. Faced with these difficulties, some analysts have applied a standard tax competition model to globalization issues (Zodrow & Mieszkowski, 2006).

According to Bird (2009), developing countries often face difficulties when dealing with the tax administration. Many of the difficulties with the tax authorities are the consequence of poorly conceived tax policies. Complaints about complexity and/or ambiguity of the tax laws, high tax rates and a lack of an integrated fiscal strategy that determines the overall burden placed on businesses community are numerous (Olayemi, 2009). Complexity of the tax system leads to non-compliance with tax laws, since taxpayers find it hard to meet their tax obligations (Shekidele, 2009). One of the key reasons for undertaking tax reforms in Kenya was to address issues of inequality and to create a sustainable tax system that could generate adequate revenue to finance public expenditures.

Unlike many other Sub-Saharan countries, Kenya is a high tax-yield country with a tax-to-GDP ratio of over 20%. Kenya is able to finance a large share of its budget, while external donor finances are used to cover a much smaller share than in other countries of the region. Like most developing countries, it has had to challenge with the common problems of tax systems with rates and structures that are difficult to administer and comply with; that are unresponsiveness both to growth and discretionary tax measures hence offering low tax productivity; that raise little revenue but introduce serious economic. They attempt to use income taxation to address equity objectives; however, Kenya fell into the same trap as many other countries that had hoped to use income taxation for redistributing purposes (Karingi & Wanjala, 2005).

1.1.1 Global Perspective on Tax Policy Reforms

The financial and economic crisis that started in 2007 has resulted in a significant deterioration of public finances across most EU Member States. Consequently, fiscal policies in 2011 and 2012 have typically been driven by the need to bring public finances back on a sustainable path. As far as tax policy is concerned, in most Member States the need for tax revenue to make a larger contribution to the overall consolidation effort has been coupled with additional challenges stemming from the need to support the recovery and restore sustained growth over the medium and longer term, (European Union, 2012)

In July 2012, all but six Member States were subject to the excessive deficit procedure (EDP). Most have to correct their excessive deficits in 2012 or 2013. Against this background, according to the Stability and Convergence Programmes and the National Reforms Programmes, most Member States expect to make a positive and significant contribution to fiscal consolidation by taking discretionary tax measures in 2012, in addition to cutting public spending.

In June 2012, the Council adopted the Commission recommendations to abrogate the decision on the existence of an excessive deficit in Germany and Bulgaria .Overall tax policy direction In 2011 and 2012 tax policy has continued to be strongly influenced by the consequences of the financial and economic crisis broken out at the end of 2008 and the subsequent debt crisis. 2010 saw no clear overall trend to increase or cut taxes, as some countries put in place expansionary measures and others focused already on public finance consolidation (EOCD, 2013)

The overall structure of taxation gives an overview of the general direction of tax changes implemented in the EU Member States in 2011 and the first half of 2012. Over that period, many Member States have increased taxes in order to speed up fiscal consolidation. Most Member States have increased personal income tax, mainly through hikes in statutory rates. These have often been implemented on a temporary basis, and have taken the form of general surcharges or solidarity contributions for high-income earners (Belgium, Greece, Italy, Cyprus, Luxembourg, Portugal and Spain), (KIPPRA, 2016)

According to European Commission (2012), measures reducing the tax burden have been mainly targeted at increasing work incentives for specific groups. Overall, the net effect is a more progressivity of the personal income tax schedule. European Commission Tax reforms in EU Member States Social security contributions have also been increased in many countries, through hikes both in the standard rates (Greece, Latvia, Poland and the United Kingdom) and in the rates applicable to specific groups (Bulgaria, France, Hungary, Austria and Portugal), Roughly half of the Member States have raised VAT rates, both the standard rate (Portugal, the United Kingdom, Cyprus, Ireland, Hungary, Poland, Slovakia and Italy) and the reduced rate (Latvia, Poland, France, Bulgaria, Greece and the Czech Republic) (Lugaric & Bogovac, 2012).

Targeted increases in the VAT rate for specific categories of goods and/or services have also been relatively frequent. These have been achieved by repealing exemptions (e.g., in Cyprus, Belgium, Denmark, Finland) and by narrowing the application of the reduced rates (e.g., in Greece, Latvia, Portugal and Finland). Excises duties have been increased in most Member States, mostly through changes in the statutory rates, both for environment and energy products and for alcohol and tobacco. Several Member States have reduced their headline tax rates on corporate income. Such states include United Kingdom, Finland, Slovenia, Greece and the Netherlands (European Union commission, 2012).

1.1.2 Regional Perspective on Tax Policy Reforms

Ghana's major changes in tax administration fiscal policies played a key role in improving the country's revenue mobilization and overall fiscal health. The prime factors cited for the increase in revenue are the expansion of tax base, the structure of taxation; and reorganization of the tax administer. The administrative reforms in Ghana centered on removing the revenue institutions from the Civil Service and granting them operational autonomy, with a view to improve efficiency through enhanced work and employment conditions. Two practical steps were taken in Ghana in 1985 to strengthen revenue administration in the country. These were the establishment of the National Revenue Secretariat (NRS) and the creation of the two major revenue organizations, the Customs, Excise and Preventive Service (CEPS) and the Internal Revenue Service (IRS), as autonomous institutions outside the civil service (Terkper, 2004).

Ethiopia tax reforms came after the 1992 liberalization which led to rapidly investment growth; Kefela (2009) reported that this increasing level of investment could not be financed by domestic resources alone. Savings declined sharply in 1990/1 (a period of violent change in the government). Since then, there has been some recovery, only to decline further by the end of the 1990s. Public saving has shown quite a remarkable recovery in the 1990s. Thus, in this respect the government's fiscal policy seems promising. However, total domestic saving was far below the level of investment and this resulted in a government deficit of about 10% of GDP per annum in the last decade (Geda, 2005). The current government has registered modest achievement in terms of fiscal policy, chiefly through revenue generation.

The subsequent taxing system in Ethiopia can be divided into three broad categories: taxes on income and profits, taxes on goods and services and taxes on international trade. The large size of the informal sector in the East African economies is the main factor restricting the growth of the tax base in the region (SEATINI, 2010). The inability of governments to establish systems to detect incomes in the informal sector has resulted in overburdening those in the formal sector with high tax rates to make up for revenue shortfalls (SEATINI, 2010). Strategy towards incentives to businesses to join the formal sector is therefore a crucial part of the strategy to increase government revenue (UNDP, 2009). Despite efforts of East African governments to enhance domestic growth by attracting foreign direct investment (FDI), tax incentives for FDI have cost implications in terms of tax revenue foregone (Kayaga, 2007).

The reform appeared to be a success in URA's (Uganda Revenue Administration) first years of existence. Reported revenue increased sharply - from 7% of GDP in 1991 to around 12% in 1997 (Fjeldstad, 2003). Corruption also seemed to decline. During this period, many observers referred to the URA as a model for other sub-African countries. These circumstances led policy makers to pursue a rapid increase in domestic revenue and a corresponding increase in public services; and rebuilding of government's revenues base has been one of the key features of Uganda's economy recovery. Tax incentives have been criticized for complicating tax administration and introducing inequities. They favor new producers over existing business, they underwrite investment which cannot stand on their own merit in the absence of special tax breaks and favor capital-intensive projects over projects which use locally produced capital goods, favoring new production facilities over proper maintenance of existing ones (Moyi & Ronge, 2006).

1.1.3 Local Perspective on Tax Policy Reforms

There are two main epochs in the reform of tax policies and administration in Kenya. The first epoch generally corresponds to the Tax Modernization Programme (TMP) that was launched in 1986 and was under implementation until the new government in 2003. The main elements of the policy thrust under the first phase of the TMP included: raising and maintaining revenue as a ratio of GDP at 24% by 1999/2000; expanding the tax base; rationalizing the tax structure to make it more equitable; reducing and rationalizing tax rates and tariffs; reducing trade taxes and increasing them on consumption to support investment; and sealing leakage loopholes. During this epoch VAT was introduced in 1990, and the KRA was established in 1995 (KIPPRA, 2006).

It is noteworthy that during the TMP epoch, in terms of fiscal decentralization, the Single Business Permit (SBP), which is arguably the most progressive feature of Kenya's local government system was introduced to replace a number of local licenses and revenues-raising permits on local businesses. The other local tax is property rates. Local governments also receive from the central government a significant block grant (local authority transfer fund) and limited earmarked funds for maintenance of rural and urban roads. Nonetheless, public services are predominantly provided through a decentralized system (KRA, 2001).

The second epoch is the on-going Revenue Administration Reform and Modernization Programme (RARMP), which was launched in FY2004/05 by the new KRA top management that had been appointed by the NARC government (2003-2007). The goal was to transform "KRA into a modern, fully integrated and client-focused organization". The strategic thrust is to harness Information and Communication Technology (ICT) applications to drive the modernization of the tax administration. In this regard, for example, the e-Filing system and Simba 2005 online system in customs are working. Key changes to tax policy have revolved around: pursuit of equity; further widening the tax base; promoting increased investment; and reducing the tax compliance burden, Nada and Jack (2009).

The reforms under the RARMP epoch were not specifically anticipated in the TMP. In other words, there was no specific initiative to sequence between the two programmes. Furthermore, there are aspects of certain tax policy initiatives that transverse the two programmes, and elements of which are also to be found in the pre-TMP period. In the latter context, two observations are pertinent. First, certain itax policy initiatives are not particular to any reform epoch. In this regard, it is noted that some tax policies cannot be located as once-off changes in a long-term strategic trajectory. Rather, they need to be monitored, evaluated and changes effected, where appropriate, on a regular basis (KRA, 2006).

Ineffective tax administration is often seen as one of the main constraints on the ability of states to collect revenues in general and direct taxes in particular (Fjeldstad & Semboja 2001). Hadler (2000) estimates that better administration of existing tax legislation may increase revenue by 30 per cent or more in many countries in SSA. In a famous statement, Casanegra de Jantscher (2000) claimed that 'in developing countries, tax administration *is* tax policy'. However, the opposite is equally true, (Keen, 2012).

Simplification of tax legislation and improved tax administration are closely linked. Tax agencies will be more effective if their tasks are made more simple, stable and predictable. On the other side, questionable options in tax policy sometimes lead to equally questionable administrative practices. Exemptions, for instance, not only pose control problems for the tax administration, but create opportunities for corruption.

In practice, the distinction between administration and policy is often hard to make, (IMF, 2011). But there is no doubt that weak and often corrupt revenue administration remains a fundamental barrier to effective and fair taxation and to building wider trust between government and citizens in many countries, (Fjeldstad, 2009). During the last two decades, support to tax administrations has been an important part of foreign technical assistance to public sector reform in developing countries, (Kloeden, 2011). The content of administrative reform in specific countries has depended a great deal on what was already in place (Bird *et al.*, 2006; Owens & Hamilton, 2004).

Some of the more widespread components are: exploiting new information and communication technologies; moving from a system organized around different taxes to one organized around localities and/or industries so that individual taxpayers have to deal with fewer tax officers; introduction of unique taxpayer identification numbers; establishing different offices and procedures for different categories of taxpayers, typically starting with eight Among the exceptions are reforms in East-Africa which have led to the abolishment of so called ‘nuisance’ taxes, including poll (head) taxes in Tanzania and Uganda, and simplification of the local tax structure, (Fjeldstad *et al.*, 2010). The establishment of semi-autonomous revenue authorities (ARAs) has been a widely noted tax administrative innovation during the last two decades. Several aid agencies and international financial institutions have concentrated much of their tax work on support for the creation and development of ARAs.

In particular, the British Government, first through Overseas Development Administration (ODA) and later through the Department for International Development (DFID), has been influential in the establishment of revenue authorities in Anglophone

Africa. ODA/DFID have funded UK experts from the British revenue administration, Crown Agents and various consulting firms to provide technical assistance to tax administrations (Kloeden, 2011). Germany (GIZ) has provided technical assistance to tax administrative reforms in Ghana, Tanzania and Zambia; the US Treasury to Liberia, Nigeria and Uganda; Norway to Mozambique, Tanzania and Zambia; Sweden to Botswana; Denmark to Tanzania; the European Union to The Gambia and Seychelles; and the African Development Bank to several countries, including Liberia and Swaziland. The World Bank has been heavily involved in the Tax Modernization Programme in Tanzania (Fjeldstad & Heggstad, 2011).

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). Given its central role, taxation has been applied to meet two objectives. First, taxation is used to raise sufficient revenue to fund public spending without recourse to excessive public sector borrowing. Second, it is used to mobilize revenue in ways that are equitable and that minimize its disincentive effects on economic activities, (Glenday, 2002). Revenue mobilization was not a challenge for the government in the first decade of independence until the energy crisis of 1970 which necessitated tax reforms to mobilize more revenue (KIPPRA, 2006).

One of the key reforms during this era was the adoption of the Income Tax Act, Cap 470 in 1973 (AFDB, 2010). Since then, there have been three distinct phases of tax reform measures. According to a study by African Development Bank Group (AFDB, 2010), the initial measures were aimed at widening the tax base by way of introducing the sales tax in 1973 and the capital gains tax in 1975. These were reactive strategies aimed at mitigating the decline in duty revenues brought about by the imports substitution and industrialization policies.

Subsequently in the third decade, additional tax reforms were instituted. The World Bank study of 1985 on Kenya's economic policy led to drafting of Sessional Paper No. 1 of 1986. Under the theme – Economic Management for Renewed Growth – the

Sessional Paper underscored the necessity to boost local revenue to fund economic development. In the period 1986 and 2002, through policy framework on Tax Modernization Programme (TMP), there was an effort to entrench tax reforms by: improving revenue raising capacity from 22 to 28 % of GDP, improving economic efficiency of the tax system through lowering and rationalization of tax rates, enhancing greater reliance on self-assessment system supported by selective tax audits, improving administrative efficiency through computerization, and lastly address constraints in existing tax structures as well as overreliance on direct taxes (KIPPRA, 2006).

1.2 Statement of the Problem

Nada and Jack (2009) examined tax reforms in Kenya particularly in regard to policy and administrative issues. The study acknowledges that tax system in Kenya has undergone perpetual reform over the past two decades. For instance, from the policy perspective there has been rationalization and simplification of rate schedules, a new value-added tax introduced, and external tariffs brought on board in order to tally with those of East African countries. It is observed that it is imperative to have continued reform of both policy instruments and both administrative and enforcement capacity of the tax system.

However, Kenya's performance effectiveness indicators suggest that whilst the tax effort is high, there is potential to increase tax revenue collection as a percentage of GDP by reducing the tax gap. Given the destabilizing effects of the budget deficits and the fact that they were becoming unsustainable, the Kenya .Government came up with measures to address this problem the most notable fiscal policy proposals adopted being the Tax Modernization Programme (TMP) and the Budget Rationalization Programme (Murith & Moyi, 2009).

Kenya's Budgets estimates have grown over a period of years with Ksh 508b being budgeted for the year 2006/2007, Ksh 540b for financial year 2007/2008, Ksh 693billion for financial year 2008/2009, Ksh 760 Billion for financial year 2009/2010, Ksh

867billion for financial year 2010/2011, 997 billion for financial year 2011/2012, Ksh 1.15 trillion for financial year 2012/2013, Ksh 1.45 trillion for financial year 2013/2014 and, Ksh 1.6 trillion for financial year 2014/2015, (KRA, 2016).

The budget for the FY 2015/2016, the fifth (5th) annual budget under the Constitution of Kenya 2010, saw the release of a KES 2.2 Trillion budget figures. The sheer size of growth of these budgets has occasioned discussions regarding the country's capability to raise the revenue to fund the expenditure plans given the level of the national debt book and; previous performances and overall budget absorption capacity at both levels of government. The debate on how realistic Kenya's budgeting framework is has also ensued with the recorded failure by the revenue collector, the Kenya Revenue Authority, to meet the revenue targets, (KRA, 2016).

In spite of the efforts by the Government of Kenya there are still a myriad of problems militating against effective and efficient tax system in Kenya and hence affecting the tax revenue collected by the Kenya government at the National level. It was therefore against this background that the researcher sought to examine effect of tax Policy Reforms on Public Revenue growth in Kenya.

1.3 Objectives of the Study

This section outlines the objectives which were addressed by the study. The objectives were categorized into general objective and specific objectives

1.3.1 General Objective

The general objective of the study was to examine effect of tax policy reforms on public revenue growth in Kenya.

1.3.2 Specific Objectives

The study sought to address the outlined specific objectives;

1. To evaluate the effect of tax administration on public revenue growth in Kenya.
2. To examine the effect of tax enforcement on public revenue growth in Kenya.
3. To analyze the effect of human resource revitalization on public revenue growth in Kenya.
4. To examine the moderating effect of business automation on the tax policy reform on public revenue growth in Kenya.

1.4 Research Hypotheses

The study was guided by the stated hypotheses which were derived from the specific objectives.

$H_0$1: There is no significant effect of tax administration on public revenue growth in Kenya

$H_0$2: There is no significant effect of tax enforcement on public revenue growth in Kenya.

$H_0$3: There is no significant effect of human resource revitalization on public revenue growth in Kenya

$H_0$4: There is no significant moderating effect of business automation on the tax policy reform on public revenue growth in Kenya.

1.5 Significance of the Study

1.5.1National Government

The findings of the study are expected to be of benefit to various stake holders in the public sector. The findings would help the National Government of Kenya to understand the challenges involved in tax collections as well as the contributions of tax policy reforms over the recent period.

1.5.2 Kenya Revenue Authority

The study would be useful to Kenya Revenue Authority in strategy formulation and the findings will be important for KRA future policy making. Other Government Revenue Agencies such as Courts, County Governments, National Government Ministries and other Institutions would use the report as a benchmark for revenue collection activities.

1.5.3 County Governments

The county governments would use the findings to improve their revenue collection and management policies at their treasuries. This they would do by continuously using the research report as a reference tool as they administer financial management both from national government and from local collections.

1.5.4 Researchers and Academicians

The findings would benefit researchers and academicians by contributing to the body of knowledge in the academic community and to stimulate further research in the field of taxation and its effect in the economy by sighting role of tax policy reforms on public revenue growth in Kenya.

1.6 Scope of the Study

The study was conducted at KRA regional offices and specifically in Risk management and Internal Audit Department, Information Communication Technology Department, Finance Department, Administration and Logistics Department, Research and Corporate Planning Department, Human Resource Department, Compliance, Risk and Quality management Department and Kenya school of Revenue Administration. The rationale of choosing Kenya Revenue Authority for this research was informed by the fact that KRA is the prime independent statutory Body with powers to collect tax revenues for and on behalf of the National Government. In addition, the choice of Headquarters was informed by the fact that most of the Departments where data collected were not decentralized and therefore the Headquarters houses all of them. Secondly, the decentralized ones might not have had enough population at the regional Offices to form a good sample for study.

1.7 Limitations of the Study

The researcher encountered various limitations that hindered access to information sought by the study. The main limitation of study was its inability to include more institutions in the Country. This was a study focusing on KRA regional Offices and specifically in Risk Management and Internal Audit Department, Information Communication Technology Department, Finance Department, Administration and Logistics Department, Research and Corporate Planning Department, Human Resource Department, Compliance, Risk and Quality Management Department and Kenya School of Revenue Administration. The study could have covered more institutions across the Country so as to provide a more broad based analysis. The researcher countered this problem by carrying out a study in all the 5 regional Offices, which served as a representative.

The other limitation to this study was that, with the new county structures, were a few reorganizations which might have resulted into the change of the staff members, thus some may be new hence not very knowledgeable on some issues. The researcher mainly relied on uncovering the situation at the moment and time of the study to establish the effect of tax policy reforms on National Public revenue growth in Kenya.

The respondents approached were likely to be reluctant in giving information fearing that the information sought would be used to intimidate them or print a negative image about them or Institution. In addition, limited literature on the effect of tax policy reforms on national public revenue growth hence might have mainly relied on primary data obtained from the target population. The researcher handled the problem by carrying an introduction letter from the University and assured them that the information they gave would be treated confidentially and it would be used purely for academic purposes.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Under this chapter facts and findings of other scholars are given. The study reviewed literature of past studies on taxation in relation to tax revenue growth. The literature was reviewed under the following subheadings; information technology, tax payers' awareness, tax administration and staff ethics. The chapter also consist a theoretical framework and conceptual framework.

2.2 Theoretical Frame Work

Theoretical framework guides research in determining what variables to measure and what statistical relationships to look for in to understand the variables of the study and; provides a general framework for data the context of the problems under study (Trochim, 2006). The study was anchored on four theories; Fischer Tax Compliance Model, Optimum Income Tax Theory, Adams Smith Canons of Taxation Theory and Economic Deterrence Model.

2.2.1 Fischer Tax Compliance Model

According to Devos (2013), tax compliance determinants based on Fischer model (Fischer, 1992) have been an important subject of research in developed countries over the past couple of years. Fischer tax compliance model provides a framework for understanding the influence of socio-economic and psychological components on taxpayers' compliance decision. These factors are categorized by Fischer and associates (Fischer, 1992) into 4 groups in his expanded model (Fischer Model). Demographic with parameters of age, gender and education, Noncompliance opportunity for example income level, income source and occupation, Attitudes and perceptions for instance fairness of the tax system and peer influence and Tax system/structure with examples of complexity of the tax system, probability of detection and penalties and tax rates.

Thus Fishers' Model of tax compliance incorporates economic, sociological and psychological factors into a comprehensive one. In Kenya Revenue Authority, revenue collection is managed by three Revenue departments, that is, Customs services, Domestic Taxes and Road Transport. According to Fishers' model of tax compliance, tax revenue has been suffering some setbacks despite the fact that the VAT registered tax payers population has grown substantially in the last ten years as well as the evident economic growth that the country has experienced in the recent past. Most of the tax administrations are organized along functional lines. (Attila, 2008)

According to this theory, behaviors of the individuals within the society are under the influence of definite factors, originate from certain reasons and emerge in a planned way. The ability to perform a particular behavior depends on the fact that the individual has a purpose towards that behavior. The theory thus suggests that Kenyan taxpayers would comply better when the reforms are favorable. The theory lays emphasis on changing individual attitudes towards tax systems, (Devos, 2013).

2.2.2 Optimum Income Tax Theory

The optimum income taxation theory was pioneered by Mirrlees (1971) though in the recent past there are a number of theorists who have examined it including Creedy (2009); O'Brien (2009) and Sorensen (2010). The theory postulates that in any economic system where equality is valued, the assumption is, income taxation would be a vital instrument of policy. It is further stated that the redistributive progressive taxation is often linked to a man's income. Mirrlees observed that, due to the use of people's economic performance as evidence of their economic potentialities, absolute equality of social marginal utilities of income ceases to be desirable for the tax system that would bring about that result would completely discourage unpleasant work. The foregoing observation leads to a number of queries regarding the kind of principles that are supposed to govern optimum income tax, the nature of+ the tax schedule, and the degree of inequality upon the establishment of the tax schedule.

Recent advances in optimal tax theory have made the theory far much easier to apply and could possibly facilitate to explain some of the current trends in international tax policy (Sorenson, 2010). According to O'Brien (2009), the classical political economists came up with a normative analysis of tax policy which tended to follow a principles-oriented approach where it was stated that a good tax system ought to satisfy certain desirable criteria. According to this theory, tax system should be productive, computable, popular, equal, frugal, divisible, and incorruptible. It is exemplified that in the event that the social welfare issues implied by the current tax system are not monotonically decreasing with the taxpayer's level of income, it would presumably be difficult to defend such a system and as such reforming the system would be considered. The optimum income taxation theory can be adopted to explain the necessity of reforming the customs system with a view of maximizing tax revenue, (Mauro, 2006).

2.2.3 Adams Smith Canons of Taxation Theory

This study is based on Adams Smith canons of taxation theory as outlined in his book; "The wealth of Nations." This theory states that a good tax system is one which is designed on the basis of an appropriate set of principles. The tax system should strike a balance between the interest of the tax payer and that of the tax Authorities. He based his argument on four principles otherwise known as canons of taxation. These are Canon of equity, Canon of certainty, Canon of convenience and Canon of economy.

The first canon or principle of a good tax system emphasized by Adam Smith is of equality. According to the canon of equality, every person should pay to the Government according to his ability to pay that is in proportion of the income or revenue. Thus under the tax system based on equality principle the richer persons in the society will pay more than the poor. On the basis of this canon of equality or ability to pay Adam Smith argued that taxes should be proportional to income, that is, everybody should pay the same rate or percentage of his income as tax, (Ghura, 2008).

However, modem economists interpret equality or ability to pay differently from Adam Smith. Based on the assumption of diminishing marginal utility of money income, they argue that ability to pay principle calls for progressive income tax, that is, the rate of tax increases as income rises. Now, in most of the countries, progressive system of income and other direct taxes have been adopted to ensure equality in the tax system. It may, however, be mentioned here that there are two aspects of ability to pay principle. First is the concept of horizontal equity. According to the concept of horizontal equity, those who are equal, that is, similarly situated persons ought to be treated equally, (Mauro, 2005).

This implies that those who have same income should pay the same amount of tax and there should be no discrimination between them. Second is the concept of vertical equity. The concept of vertical equity is concerned with how people with different abilities to pay should be treated for the purposes of division of tax burden. In other words, what various tax rates should be levied on people with different levels of income. A good tax system must be such as will ensure the horizontal as well as vertical equity, Ghura (2008).

According to Brockington (2008), another important principle of a good tax system on which Adam Smith laid a good deal of stress is the canon of certainty. To quote Adam Smith, ‘the tax which each individual is bound to pay ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid ought all to be clear and plain to the contributor and to every other person. A successful function of an economy requires that the people, especially business class, must be certain about the sum of tax that they have to pay on their income from work or investment.

The tax system should be such that sum of tax should not be arbitrarily fixed by the income tax authorities. While taking a decision about the amount of work effort that a person should put in or how much investment should he undertake under risky circumstances, he must know with certainty the definite amount of the tax payable by him on his income. If the sum of tax payable by him is subject to much discretion and arbitrariness of the tax assessment authority, this will weaken his incentive to work and invest more, (Kimuyu, Wagacha, & Abagi, 2009).

According to Richardson, (2006), lack of certainty in the tax system, as pointed out by Smith, encourages corruption in the tax administration. Therefore, in a good tax system, "individuals should be secure against unpredictable taxes levied on their wages or other incomes. The law should be clear and specific; tax collectors should have little discretion about how much to assess tax payers, for this is a very great power and subject to abuse." In the opinion of the present author the Indian tax system violates this canon of certainty as under the Indian income tax law a lot of discretionary powers have been given to the income tax officers, which have been abused with impunity. As a result, there is a lot of harassment of the tax payers and corruption is rampant in the income tax department.

According to the third canon of Adam Smith, the sum, time and/manner of payment of a tax should not only be certain but the time and manner of its payment should also be convenient to the contributor. If land revenue is collected at the time of harvest, it will be convenient since at this time farmers reap their crop and obtain income. In recent years efforts have made to make the Indian income tax convenient to the tax payers by providing for its payments in installments as advance payments at various times during the year. Further, income tax in India is levied on the basis of income received rather than income accrued during a year. This also makes the income tax system convenient. However, there is a lot of harassment of the tax payers as they are asked to come to the income tax office several times during a year for clarifications of their income tax returns, (Ariel, 2012).

The Government has to spend money on collecting taxes levied by it- Since collection costs of taxes add nothing to the national product, they should be minimized as far as possible. If the collection costs of a tax are more than the total revenue yielded by it, it is not worthwhile to levy it. More complicated a tax system, more elaborate administrative machinery will be employed to collect it and consequently collection costs will be relatively larger. Therefore, even for achieving economy in the tax collection, the taxes should be as simple as possible and tax laws should not be subject to different interpretations. According to Adams Smith and other political philosophies, taxes are justified as they fund activities that are necessary and beneficial to society. Additionally, progressive taxation can be used to reduce economic inequality in a society. According to this view, taxation in modern nation-states benefits the majority of the population and social development,(Ghura, 2008).

Holmes posits that taxes are the price of civilization. It can also be argued that in a democracy, because the government is the party performing the act of imposing taxes, society as a whole decides how the tax system should be organized. Compulsory taxation of individuals, such as income tax, is often justified on grounds including territorial sovereignty, and the social contract. Defenders of business taxation argue that it is an efficient method of taxing income that ultimately flows to individuals, or that separate taxation of business is justified on the grounds that commercial activity necessarily involves use of publicly established and maintained economic infrastructure, and that businesses are in effect charged for this use, (Gale, & Samwick, 2014).

Although many taxpayers report their income and pay their tax liabilities properly, there are still many taxpayers who do not. The challenge to coordinate policy reforms with parallel reforms in tax administration has rarely been fully addressed yet the menu of administrative reform options has been greatly enriched with new approaches to organizational design, taxpayer services, ICT solutions, human resource incentives and formal anti-corruption strategies. The canons of taxation theory would help in relating tax administration and revenue growth thereby providing a critical path to follow in obtaining the actual determinants of public revenue growth in Kenya, (Kiringai, Ndung'u, .&. Karingi, 2002).

2.2.4 Economic Deterrence Model

The proponents of this model were Allingham and Sandmo in 1970. The model which is based on the economic theory of compliance generally focus on deterrence. Deterrence can be achieved through a number of approaches, punitive and persuasive. That is, deterrence may take on the form of increasing the probability of detection, increasing the tax rate or by the imposition of tougher penalties. Alternatively, it may take on the form of better education, increased advertising/publicity and incentives. The focus of this section of the chapter will be upon the punitive impact of penalties, sanctions and other enforcement factors which shape taxpayer compliance attitudes and behavior (Ariel, 2012).

The economic definition of taxpayer compliance views taxpayers as 'perfectly moral, risk-neutral or risk-averse individuals who seek to maximize their utility, and chose to evade tax whenever the expected gain exceeded the cost. Thus, a pure 'cost-benefit' approach is given for why or why not taxpayers may comply with the tax laws. Some researchers propose that individuals are expected to weigh 'the uncertain benefits of successful evasion against the risk of detection and punishment. Consequently, a penalty structure forms part of the punishment, and is a critical factor in an individuals' choice to evade tax. Given this background, the following analysis illustrates how the economic deterrence model has evolved over the last five decades, (Osofsky, 2010).

Over this period studies have demonstrated a gradual 'watering down' of the pure economic deterrence model, which concentrated predominantly on maximizing utility, to a model which now incorporates other non-economic and persuasive factors, albeit in a somewhat primitive form. In view of this theory and the important role taxes play in the economy, there has been need to reform taxes to eliminate the challenges experienced and enhance public revenue growth. The challenges that confront tax growth include ineffective tax administration policies on taxation; poor response of VAT to reforms, weak capacity to process large volumes of returns and refunds; and delays to prepare and submit tax returns. The theory of economic deterrence thus acts as a guide to the approaches taken to reforms for enhancing public revenue growth in Kenya (Devos, 2013).

2.3 Conceptual Framework

The independent variables are tax administration, tax enforcement and human resource revitalization. Dependent variable is public revenue growth while the moderating revenue is business automation system.

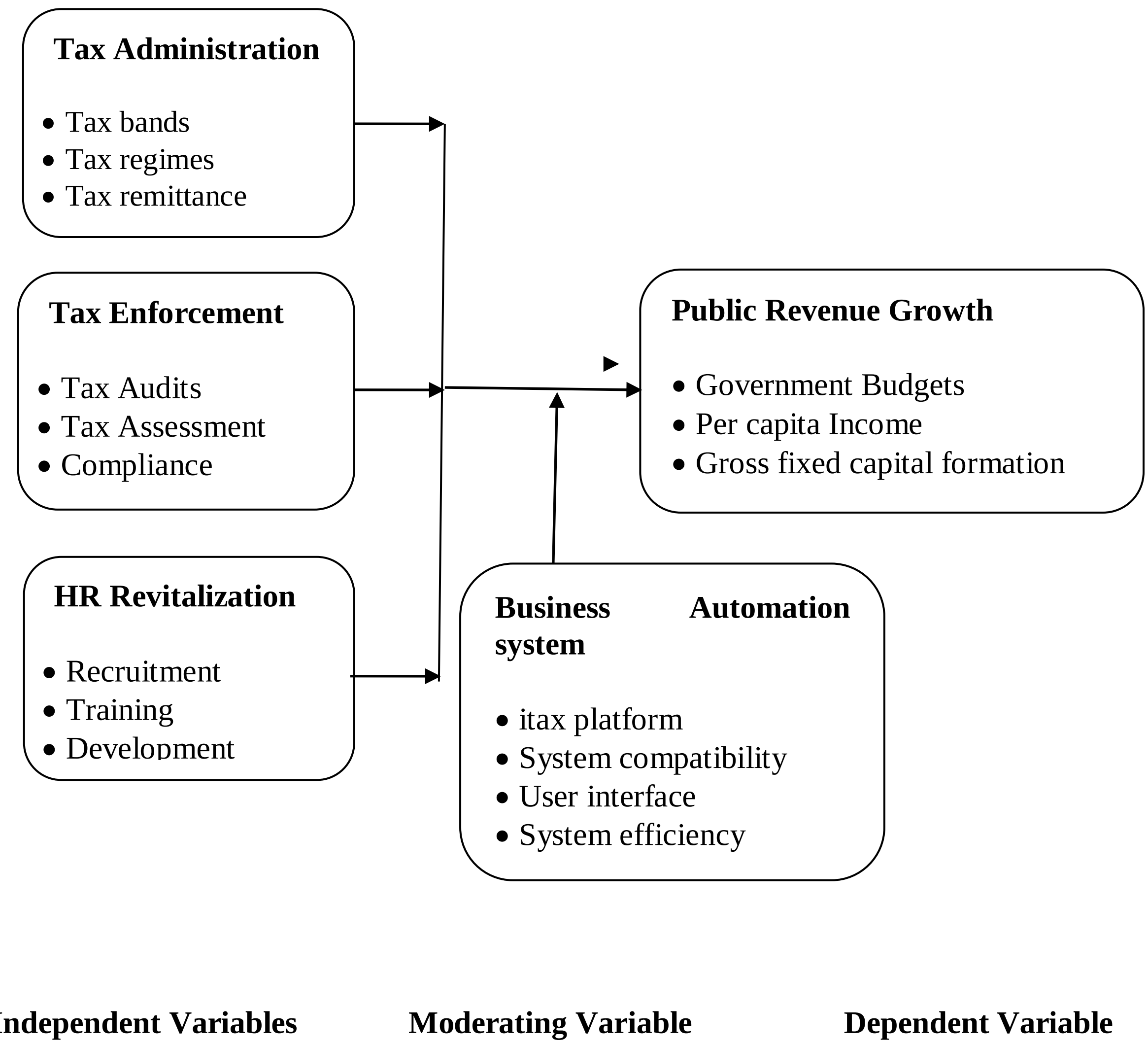

Figure 2.1: Conceptual Framework

2.3.1 Tax Administration

The fact that attempts to increase tax revenue through increasing the capacity of KRA has failed is not seen as critical by either the international financial institutions or the Kenyan government. In fact, the international financial institutions seem more than pleased with the performance of the KRA to date. Perhaps the relaxed attitude towards the KRA's failings results from the policy/administration distinction that often lurks at the base of the justification for exporting good governance and good practice ideas. Recently, the structural reforms attached to aid packages have come under great scrutiny and have been criticized for increasing poverty levels and being antidemocratic (Sen, 2006)

As a result, international financial institutions have softened such demands, with donors now looking to ensure 'ownership' and 'sustainability' where once compliance and efficiency were the aims. However, the pursuit of good governance has largely been resistant to this policy sea-change, because international organizations can argue that good governance reforms do not interfere with a government's policies, they merely suggest the best way that those policies can be enacted. As they are merely devices for helping the domestic government to implement its own policy choices in a more effective manner, the argument goes; there can surely be nothing undemocratic or questionable about such good governance reforms, (Shalo, 2003).

This distinction between policy and administration has been internalized into the administration of the countries themselves. In describing the role of the KRA Waweru argues that 'We need to distinguish tax policy from tax administration. At the risk of repeating the obvious, let us bear in mind that promulgation of tax policy is the domain of the Ministry of Finance (Treasury), while tax administration in Kenya is vested in the Kenya Revenue Authority (KRA, 2000).

The emphasis that has been placed on increasing tax revenue through improvements in tax administration is itself a tax policy and to dress it up as anything else will distort the options available to the Kenyan government. This is because in an economy as strapped for cash as the Kenyan economy the financial resources, time and energy that have been spent on the KRA represent a significant and real opportunity cost to the Kenyan government. These are resources that could have been spent elsewhere but have not been as a direct result of the focus on tax administration. What is more, the KRA and the Kenyan government are being tempted into considering the expenditure of vast sums on further improvements to the KRA's capacity. Speaking this year, Waweru noted that use of information technology in support of tax administration had boosted the tax administration in countries as diverse as Spain, Mexico, Canada, Singapore and New Zealand (Green, 2009).

Lamenting the analysis of the John F. Kennedy School of Government in 2000 that 'Kenya failed to computerize Income tax administration in the 1970s and Customs administration in 1989, Waweru continued 'We realise that we must use technology to support tax administration, even if this is an expensive venture. How else shall we be able to address the problems of transfer pricing, taxation of e-commerce and tax evasion? We look forward to the time all the KRA departments, both revenue and support, will be networked, and taxpayers and other stakeholders will be able to transact business with KRA online, (Waweru, 2004).

The evidence from recent attempts also suggests that such a computerization policy is unlikely to make much of a difference. This is for two reasons; Firstly computerization programs have a history of failure in Kenya. Either the contract goes to an unsuitable company, or the program is left incomplete and leaves an organization with two incompatible administrative systems in which case it is inevitably the newer system that is abandoned. The fate of the computerized passport system which was the brainchild of the US government following the Embassy Bombings in 1998, and which is currently at the center of one of Kenya's biggest ever corruption scandals is a classic example of the former. The attempt to computerize Kenya's customs administration in 1989 is a pertinent example of the latter. Secondly, it is unclear that a more efficient KRA would lead to greater tax revenue, (Turbin, 2001).

The resources that have so far been spent on increasing capacity have not resulted in significant increases in tax revenue, and what needs to be proved before more is spent is that such increases exist to be realized. There is nothing wrong with having closing the taxation gap as a long term plan but what is dubious is the idea that there is scope for realizing serious gains in revenue from income tax by closing the taxation gap in the short-term. What seems more likely is that there is little scope for gains in this area for a number of reasons, most importantly the widespread levels of poverty which are increasing year on year and the elusive nature of the informal economy. In other words the supposed taxation gap which the KRA is hell bent on closing may in reality be a mirage that, as the KRA perceives itself to be getting closer to closing it, will simply slip further away, (Dessler, 2013).

The government, through its income tax system, is only contributing to this poverty, and to the corruption perpetuated by need. It is widely accepted that public employees will take 'gifts' on the side to make up their income. Such gifts can range from police officers who routinely offer to reduce your fine if you don't ask for a receipt, to hospital officials working at 'free' hospitals taking small payments for health services. While government officials do not earn enough to live and support their dependents, such 'graft' will remain endemic and public perceptions concerning the legitimacy of graft will continue to be ambiguous. Unfortunately, it is partly pressure from international financial institutions that has kept wages for government employees low. Where there is pressure to balance the budget and decrease government expenditure, the Kenyan government will attempt to keep service provision consistent, while forcing funding down (Daris, 2003).

Although it is true that there are areas of the Kenyan economy that are currently evading taxation and undoubtedly could contribute, it is also true that much of the informal economy exists as the informal economy because, were it formalized, it would fail to achieve profitability. As a result, attempts to formalize certain areas of the informal economy may lead to a loss of ‘informal jobs’. What is needed if the informal sector is to be effectively formalized is to provide the support and infrastructure to that sector to enable the transition to be survived (Green, 2007).

This is something increasingly recognized by international financial institutions and the Kenyan government. According to the latest Economic Recovery Strategy released by the Kenyan government, ‘The false dichotomy between the formal and informal sectors in our economy has only been meaningful in as far as the small enterprises remain small, are denied needed services, and infrastructure, and do not pay taxes. This strategy for economic recovery progressively seeks to eliminate this dichotomy by providing infrastructure and services, particularly financial, to small and medium enterprises and by ensuring that they pay taxes, (Kenyan Ministry of Planning and National Development, 2003).

In other words, for companies to fulfill their duty to pay taxes to the government, the government must fulfill their own duty to provide infrastructure and services to these companies. The government, if it wants to formalize more of Kenya’s economy, must do more than simply ensure that more people and businesses pay taxes. Whilst this approach is much more realistic, it is unlikely to see an increase in resources available to the government in the short term, because providing the infrastructure to support the formalizing of the informal sector is likely to cost as much as, if not more than, the formalizing would initially bring in by way of increased tax revenue. Furthermore, much of the taxation gap that the Authority has set his sights on closing is the result of tax breaks for the political friends of the government and institutionalized corruption by government members themselves and is consequently beyond the reach of the KRA. The international community is more than aware of this problem, (Kenya Ministry of Planning and Development, 2004).

In addition to the fact that replacing taxes from trade with domestic taxes may not be feasible, if it were possible it would most likely be a highly regressive move. Given that direct taxation is unlikely to be able to make up the lost revenue, the Kenyan government is likely to turn to VAT. Although there are problems with expanding VAT as discussed above, VAT collection is far straighter forward than direct taxation. However, an increase in the rate of VAT will increase incentives for companies to stay in the informal sector and 'dodge' the tax. This may damage tax compliance and constrain attempts to expand the tax base. Furthermore, VAT hurts those who consume a higher proportion of their income (to the extent that standard consumption goods such as basic foodstuffs are in the formal sector) and is therefore damaging to the standards of living of the poorest members of society, (Stotsky *et al.*, 2000).

KRA has come up with effective systems and administration measures that have enhanced protection of revenue collection, efficient and effective provision of services to public and taxpayers. The system has on-line services such as; electronic transactions, enquiries and electronic applications for KRA processes. The revised administrative and systems has components such as Taxpayer Register (TRE), Tax Returns Processing (TRP), Banks Collection (BCL), Taxpayer Services (TPS), External Information Management (EIM), Data Base Management (DBM), Taxpayer Account (TCA), Payment Plans Processing and Control (PPP) and Tax Credits and Refunds (TCR). All these have contributed greatly to the tax collections growth, (KRA, 2006).

2.3.2 Tax Enforcement

Auditing is an independent examination and expression of opinion on the financial statement of an enterprise by an appointed auditor in accordance with his terms of engagement and compliance with statutory regulation and professional requirements (Daniel, 1999). It is important to note that any individual or organization that falls within the scope of the above income groups, is obliged to pay tax, this can be voluntarily or otherwise. It is within this process that the issues of returns and assessment arose. Every individual or organization liable to income tax for a year of assessment is required to submit returns of his income and other relevant matters to the tax authority having power to assess him to tax. And this is subject to satisfaction of the returns by the Tax Authority (Oyebanji, 2006).

To spur tax compliance, two opposite set of tax enforcement approaches are used: the coercive and persuasive approaches (Honegham, 2010). The coercive approach advocates hard actions and the persuasive approach advocates collaborative working with the taxpayers. Little attention has been paid to understand the combined effects of these conflicting approaches. Spurring tax compliance is a commonly experienced challenge for tax authorities in developed and developing countries (Silvani, 2008). In response to this challenge, which largely depends on taxpayer's type and size, tax authorities have innovated diverse compliance approaches and techniques. Approaches used to address small and large business tax compliances differ due to the risks they impose and the revenues they provide to the tax system, (Baer, 2002).

Large corporate taxpayers (also referred to as large taxpayers) provide the majority of tax revenues to the tax system and play an instrumental role to its revenue imperatives. Large taxpayers are different from other taxpayers not only for the huge tax revenues they provide, but also for the risks and complexities they exert to the tax system. Tax authorities across the world have created Large Taxpayer Office (LTO) to secure tax compliance of the large taxpayers by employing an approach that tends to rely more on the persuasive than the coercive instruments, (Donnelly & Heneghan, 2010).

In the small and medium taxpayer's division the coercive philosophy also called deterrence or stick based approach is common, where taxpayers conform to their tax obligations if they are punished for non-compliances (Allingham & Sandmo, 2002). In general, higher audit probabilities and severe penalties encourage tax compliance. Probability of detection refers to the likelihood that the tax authorities will discover an individual's noncompliance and seek to remedy the evasion. Individuals normally would like to evade their tax liabilities entirely and the only reason they might not do so is that there is some non-zero probability of being caught (Massimo, 2013). Raising the probability of detection will increase tax compliance and tax audit represents one of the effective detective measures used by tax authorities (Alm, 2001). In fact, tax audits are considered to have both direct deterrent effect on the taxpayers actually audited and indirect deterrent effect on taxpayers not audited (Alm, 2004).

Tax audit is one of the most effective policies to prevent tax evasion behavior. The level of tax audit can be determined by two elements; one is how many tax payers are selected for audit and the other is how much intensive the audit is. The first element is easily measured by the number of audited tax payers divided by the total number of tax payers. However, the latter is so difficult to measure due to non-published information about tax audit progress. It is commonly measured by the first element to indicate the level of tax audit for practical comparison (Slemrod, 2000)

According to Kircher (2008), Tax audit is "an examination of an individual or organization's tax report by the relevant tax authorities in order to ascertain compliance with applicable tax laws and regulations of state". He further said that tax audit is a process where the internal revenue service tries to confirm the numbers that you have put on your tax return, (Kircher, 2008). Tax compliance can be defined as "the ability of a tax liable body to submit accurate, complete and satisfactory returns in conformity with tax laws and regulations of the state to the authority for the purpose of tax assessment". The designed tax authorities audit policy can have important effects on production decision by firms. The nature of such effects depends on whether firms compete or collude. Accordingly, an appropriate designed audit policy may not only achieve greater compliance and higher net revenue, (Frank, 2010).

Surplus budgets output and resources spend on audit but may also have other effects that would be normally considered desirable in a wider economic context. By a smart design of audit policy, the authorities can create information externalities that partially offset the informational advantages of industry insider. Since decision in the product market is in the light of the eventual outcome of net after tax expected profits, the audit policy can create a linkage to output decisions. Specifically, it may be possible to nudge firms in the direction of greater efficiency, (Frank, 2010).

To assist the government in collecting appropriate tax revenue necessary for budget, maintaining economic and financial order and stability, to ensure that satisfactory returns are submitted by the tax payers, to minimize the degree of tax avoidance and tax evasion, to ensure strict compliance with tax laws by tax payers, to improve the degree of voluntary compliance by tax payers and to ensure that the amount due is collected and remitted to government, (Kwon, 2004). According to Silvani (2008), tax compliance involves two opposite set of tax enforcement approaches namely, coercive and persuasive approaches. The coercive approach advocates hard actions and the persuasive approach advocates collaborative working with the taxpayers. Little attention has been paid to understand the combined effects of these conflicting approaches. Spurring tax compliance is a commonly experienced challenge for tax authorities in developed and developing countries.

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Tax audit exert only a modest positive effect on tax compliance. Another important factor affecting tax compliance is the relationship between tax compliance and the severity of sanctions. The idea is that fear of penalties prohibits tax noncompliance behavior. Establishing an effective system to penalize tax evaders is an important measure to encourage tax compliance (Kircher, 2008). Taxpayers will be more likely to comply if noncompliance may result in severe penalties. The persuasive or the collaborative approach views that respectable treatment of the taxpayers with a chance of participation in the taxation process may enhance tax compliance. Coercive instruments enforce obedience to tax obligation by external material, for instance, tax penalty, whereas persuasive instruments induce compliance by means of psychic influence on the taxpayers, for instance, taxpayer service. An obvious question arising is which set of instruments is more important to the understanding of small and medium tax compliance and why (Beron, 2000).

2.3.3 Human Resource Revitalization

The effects and consequences of rampant corruption in the tax system are very serious. It reduces state revenues and thus diminishes the capacities of the state to fulfill its obligations. The losses in revenues and thus subsequently in public spending are often completely out of proportion to the amounts paid as bribes. Recent studies have showed that corruption reduces public tax revenues, (Tanzi & Davoodi, 2000; Attila *et al.*, 2008) has adverse effect on the tax morality of taxpayers and distorts a country's tax structure. These various findings suggest that there are three mechanisms by which corruption in fiscal administration affects economic growth. Firstly, by decreasing the resources available for public authorities, corruption will reduce the productive public investments in such areas as roads, health and education (Torgler, 2007).

This effect is accentuated since the tax morale of economic agents is affected. Secondly, by worsening the distortions on the level of taxation and its structure, corruption reduces growth more than the harmful effect of taxation alone. Lastly, by allowing economic agents, in particular private companies to reduce their fiscal burden, corruption can have an indirect "positive effect" on growth if the revenue from unpaid taxes is then used to finance new investments, (Tanzi, 2000).

Mauro (2006) shows that government spending on education as a ratio to GDP is negatively and significantly correlated with corruption index. It means that high corruption level causes expenditure on education to decrease (the more corruption, the less spent on education). The coefficient of the analysis shows that a one-standard-deviation improvement in the corruption index is associated with an increase in government spending on education by around a half percent of GDP. Similarly, his analysis indicates that other components of expenditure, most importantly, transfer payments, social insurance and welfare payments are also negatively and significantly associated with the corruption index, (Koster, 2010).

On the other side, Delavallede (2006), argues that public corruption distorts the structure of public spending by reducing social expenditure, as education, health and social protection. She finds a negative and significant relationship between corruption and education, health and social insurance expenditures. On the other side, Gupta, Mello and Saharan (2000), suggest that corruption is associated with higher military spending as a share of both GDP and total government spending. The second corruption effect is related to tax revenues of a government.

Ghura, (2008) assumes that the level of corruption is a factor that influences tax revenue performance. He analyzes tax revenue performance in Sub-Saharan African countries and finds that corruption is a factor that decrease tax revenue - GDP ratio and a decrease in corruption can increase tax revenue. On the other side, Hwang (2002), examines the relationship between corruption and government revenue and concludes that corruption inversely affects the total amount of government revenue.

According to Imam and Jacobs (2007) one of the reasons for low tax revenue in Middle East is institutional corruption and their results suggest that government revenues from taxation could rise when corruption falls. Corruption has an impact on public investment directly. Mauro (2007's) studies show that there is fairly robust evidence that corruption lowers total (private and public) investment, but there is no clear relationship between corruption and public investment. The author notes that these findings may be due to the fact that the sample is relatively small and consists only of developing countries.

As for the relationship between corruption and tax evasion, which is the main interest of study, Tanzi and Davoodi (2001) state that economies characterized by a great extent of corruption are argued to be plagued by substantial tax evasion activities as well. Since empirical literature is so scarce about tax evasion and corruption, few theoretical papers find that corruption among tax enforcement agents increases income tax evasion since the effective penalty declines, providing a theoretical argument for a positive link between tax evasion and corruption.

Sanyal *et al*. (2000) and Sanyal (2002) show that tax revenues may decline with the income tax rate in the presence of corrupt tax officials and investigate the impact of alternative reward schemes on the behavior of corrupt tax officials and the level of corruption. In terms of interactive models of tax evasion and bureaucratic corruption, recent studies of Goerke (2006) and Acconcia *et al.* (2003) deserve a brief review.

Goerke (2006) states that firms may evade taxes on profits and can also avoid fulfilling legal restrictions on production activities by bribing bureaucrats. It is shown in his paper that the existence of tax evasion does not affect corruption activities at the firm level, while the budgetary repercussions of tax evasion induce less corruption. Policy measures that alter the gains or losses from corruption have a non-systematic impact on tax evasion behavior. Acconcia *et al.* (2003) consider a simple economy where self-interested taxpayers may have incentives to evade taxes and to escape sanctions, by bribing public officials in charge for tax collection. It is found in the paper that larger fines for evasion will increase tax compliance with ambiguous effects on corruption while larger fines for corruption reduce corruption at the cost of reducing tax compliance.

Employment ethics, as a subdivision of business ethics, Crane and Matten (2004), involves the application of general moral principles to the management of employees' wages and conditions. In the same way as, sports or medical ethics, it begins with a concern about human relationships and how we treat other people. There are two dimensions to this: personal ethical issues at work; and broader questions of business social responsibility. The first addressed the way one should behave, as responsible individuals, towards other employees and our employer. This might include questions like personal honesty in completing expenses forms, using the work telephone or internet facilities resisting the temptation of bribes, or simply kindness and consideration towards our workmates. Without a culture of personal ethics, high standards of business ethics are inconceivable. For this reason, many organizations now have an ethical code of practice to guide employee behavior, (Rajar & shah, 2007).

The process of translating ethics from personal behaviour to business practice is not straightforward. As we have seen, one initial complication to business ethics is that decisions about right and wrong are made by an impersonal organization, rather than a single identifiable individual, as in some other spheres of moral decision making. A further apparent difficulty, compared this time to other fields of management activity, is that ethics is about what ought to be, rather than what is. In short, it involves value judgments and differences of opinion rather than just technical decisions, (Kavanagh *et al.*, 2010).

There is wide agreement among researchers that corruption has a significant negative impact on tax revenues. Studies in developing countries indicate that often more than half of the taxes that should be collected cannot be traced by government treasuries due to corruption and tax evasion. While some corruption researchers have proposed that corruption can be an efficiency-enhancing force in tax revenue collection by motivating tax officers to work harder and dis-incentivizing tax evasion, other experts have pointed out that presence of corruption reduces tax revenues in the long-run, (Fjeldstad & Tungodden, 2001).

In order to solve most unethical and corruption issues in the Institution, KRA came up with a training institute-Kenya Revenue Authority Training Institute (KRATI) which is a specialized training institution focusing on customs, tax administration and management studies. KRATI, under a memorandum of understanding (MOU) signed between Kenya Revenue Authority and the Centre for Customs and Excise Studies, University of Canberra is already collaborating with the Centre in training and educational programmes. It offers courses such as:- Senior Management Development Programme (CCES), Graduate Trainee Program, Basic Customs Procedures Course, Basic Tax Administration Course, Clearing and Forwarding Agents Program, Management Development Course, SIMBA 2005 (customs system) training, Rules of Origin, Customs Valuation, Tariff Classification, Tax Audit, Advanced Tax Administration, Risk Management, Investigations Techniques and Preventive Service/Boarder, (KRA, 2010).

2.3.4 Business Automation System

Information is at the heart of an organization's management system. In particular, information is one of the most vital resources an institution has as it aids: internal operations; service delivery; and the dissemination of results etc. Against this backdrop, tax administrations around the world have accorded import to enhancing their information systems through initiatives such as: re-engineering of work processes; re-designing systems and reporting formats; and automation with the aid of Information, Communication and Technology (ICT). In other words, “developing and sustaining systems that produce, store, transmit and process information is a priority function in public administration and for national development”, (Kariuki & Kiragu, 2011).

ICT applications have evolved from tools to increase policy effectiveness, cut costs and realize efficiencies, to being more interactive and stakeholder focused (Snellen, 2005). Specifically, in the early 1990s, with the emergence of the internet, email and intranet combined with “the growth of customer relationship management”, and increased public demands for ‘service quality’ and new work methods, the scope of modernization of the public sector through the application of ICT expanded electronic provision of government services and activities, (Bovaird, 2003).

The remainder of this note seeks to give the reader an appreciation of the practical application of electronic government (e-government) in tax administrations, (Heneghan, 2010). Thereafter, the paper presents some of the key obstacles to ICT system sustainability, and associated measures needed to mitigate them. Utility of ICT to a tax administration’s core operations ICT is used to enhance performance in revenue administrations, for example, by providing readily accessible historical data, reducing errors, processing times and costs, improving client service and promoting voluntary compliance and hence increasing revenue collections – largely by making it more user friendly and convenient to file tax returns and pay any amounts due, minimizing rent seeking opportunities by decreasing the level interaction between taxpayers and revenue administration staff and aiding better Automation in Tax Administration, (Dowe, 2008).

A common ICT application in tax administration is pivotal to the provision of services. In the area of customs, trade facilitation is a principal service. Trade facilitation “involves the simplification, standardization and harmonization of procedures and associated information flows” involved decision-making, Intelligence tools and processes in decision-making are probably the most sophisticated ICT enabled applications. They are increasingly used to raise revenues by capturing incidences of non-compliance with minimal manual effort (Smith, 2009).

Intelligence tools and processes rely upon automated data matching, precedent databases, campaign management and sophisticated rules-based systems. Automated data-matching uses information from several records (including third party information) to verify the accuracy of information provided by taxpayers. A precedent database informs the formulation of tax rulings. Campaign management revolves around making broadcasts to targeted taxpayer groups which aim to promote compliance. Lastly, sophisticated rules-based systems: "are used to define what actions should be Business rules provide the tactical detail about how strategy translates into actions," (Inland Revenue Department of New Zealand, 2009).

Inland Revenue of New Zealand Policy-based budgeting External scrutiny and audit Accounting, recording and reporting Increased revenue over time External scrutiny and audit Optimal interventions Predictability and control in budget execution Automation in Tax Administration (Dias, 2009). To these ends, countries across Africa have made substantial investments in ICT systems in the area of trade facilitation. The widespread implementation across the continent (in over forty countries) of the Automated System for Customs Data (ASYCUDA) to manage foreign trade transactions (e.g. manifests, customs declarations, transit and suspense procedures etc) is remarkable.

A later version of ASYCUDA used in countries such as Benin, Botswana, Cameroon, Tanzania and Zambia allow for direct trader input so that importers can lodge declarations from their bases, and to minimize the buildup of documents. In the case of the East African Community, ASYCUDA and other customs systems are interfaced with an electronic cargo tracking system, the Revenue Authority Digital Data Exchange (RADDEX). RADDEX seeks to reduce the time and cost of cargo clearance between EAC countries by providing secure information bridge that can be readily accessed by authorized users (USAID, 2012).

Kenya Revenue Authority (KRA) no longer manually generates Taxpayer Identification Number (TIN) certificates. Rather through its iTax system, electronic registration (e-Registration) module, taxpayers are able register to obtain TINs online. KRA recently announced that it would further enhance iTax to enable the electronic collection of taxes. In this regard, KRA has partnered with a financial service provider UBA Kenya Bank to pilot the enhanced features for the year ended 30th June 2013 as part of an effort to enhance domestic revenue collections Taxpayers will be able to electronically file returns, make payments and enquire about their tax status online, while monitoring their accounts in real-time," (Amuyunzu, 2013).

It is also noteworthy that South African Revenue Service (SARS) has relative to many tax administrations across the continent made substantial investments in ICT. Initial focus was on migrating from legacy systems to a more modern platform which empowers and enables the institution's frontline functions to mine data and carry out business intelligence activities. SARS has also taken advantage of ICT to realize efficiencies and improve service offerings, and thereby encourage voluntary compliance, (Edwards-Dowe, 2008).

In this regard, Smith (2009) quite aptly comments that "while we have fairly well-defined ideas about what the system ought to be able to do, we still must reconcile our wants with the enormous costs involved". What is more, according to the Organisation for Economic Cooperation and Development (OECD), in a public sector setting, a significant proportion of ICT projects experience problems and/or fail. Specifically, the governance arrangements are frequently weak and as a result "budgets are exceeded, deadlines are over-run and often the quality of the new system is far below the standard agreed when the project was undertaken," (OECD, 2001).

According to Leydesdorff and Wijsman (2008) budget overruns result from a combination of organizational, political and technical complexities – in particular: "There is an inherent mismatch in flexibility between ICT systems and political and organizational processes. While political and organizational processes are dynamic and flexible by nature, once a decision has been taken to develop a particular ICT system and the project is underway, it is difficult to change the project. Such changes are not impossible, but have their price in terms of time and budget overruns." In addition to the above, an ICT intervention can create problems in the absence of consensus and/or may be constrained by existing structures and processes and/or (3) might face resistance from a revenue administration's employees; and/or may be restricted by the prevailing legislative framework (Chatama, 2013).

Specifically, the process could be derailed when: top management does not sufficiently understand the utility of ICT; and/or technical specialists are ignorant of a public sector organization's operations and information requirements; and/or stakeholders, especially frontline staff, are threatened by the initiative). What is more, technology is not culturally neutral, (Frissen, 1989). In this latter perspective institutions affect "the way information is used just as much as informatization shapes the way organizations work – typically by reinforcing the existing management culture" (Hood, 1998). It is also significant that political and social dynamics also have a part to play in promoting or undermining innovations in ICT, especially issues to do with user (particularly taxpayer) access and relevance, (Heeks & Davis, 2001).

Moreover, users "worry about privacy and security" (West, 2005), and there may be anxiety that "information will be used to increase state regulation of citizens' lives" (Barrett, 1992). Automation in Tax Administration essential measures to promote continued effective ICT systems As African revenue administrations proceed with the implementation of various ICT initiatives, there is need to consider and put in place measures to ensure that investments contribute to sustainable and effective change. In this regard, revenue administration managements could draw on experiences from elsewhere. Specifically, a policy brief by the OECD (2001) suggests that at least six factors are critical to getting ICT projects to succeed. First, it is important that adequate governance arrangements are in place. On this point, it is generally accepted good practice for ICT projects to be overseen by a Steering Committee. Such a committee typically guides the development of the ICT strategy, agrees project management arrangements, and provides the project team with guidance on issues as they arise, assists in containing the project scope, monitors implementation progress and signs off on key deliverables.

Dias (2009) offers a helpful example of the value of sound governance arrangements. Dias on governance of ICT projects Commitment from senior management is the most important: even the best software and most dynamic project team will not achieve the goals of the automation project if senior management is not willing to accept the changes. Moreover, the commitment and support of senior management are required not only during the project implementation period but also during the entire life cycle of the system. There are a series of decisions to be taken when introducing an automated system. Management is required to take drastic action and must have the courage to make changes. Otherwise, the automated system could be lumbered with the remnants of the old manual system, (Payne, 2003).

The most common example of this is where manual records and a computerized system exist side-by-side. A comparison of the processes of countries that use the same version of ASYCUDA software reveals that some have almost attained a paperless environment whereas others still require several copies of cargo declarations. The OECD policy brief urges public sector institutions to be cautious in defining project scope by investing in smaller projects and/or adopting a modular/phased approach. For instance, many tax administrations gradually introduce e-filing and payments on a taxpayer segment basis, (Edwards-Dowe, 2008).

Some of the benefits of a phased approach are that it enables a revenue administration to gradually build capacity, makes it possible for potential risks to be minimized, ensures that a project is more manageable and as a result planned timetables can be adhered to, allows the revenue administration to manage implementation within an approved resource envelope and gives management an opportunity to make adjustments/ adapt the project in light of experience. Automation in Tax Administration is imperative for a tax administration to manage project risks. Risks are defined as “the uncertainties that pose threats, limitations and obstacles to the achievement of project goals and objectives, (Mutisya, 2014).

Some major risks for tax administrations include but are not limited to the following: People – retaining critical ICT skills which generally tend to be in short supply is a challenge, and puts the sustainability of ICT systems at risk. This suggests the need for tax administrations to continue to benchmark their human resource practices with other Organisations, and where necessary adjust policies to ensure that ICT personnel are motivated and retained, Security – phishing is a particular concern for tax administrations. The Internal Revenue Service (IRS) in the United States of America (USA) defines phishing as "the fraudulent use of [its] name or logo by scamsters trying to gain access to consumers' financial information in order to steal their identity and assets Fraud risks – with the advent of e-filing, fraudsters are able to illegally claim refunds by stealing other taxpayers' identities through phishing and other means, (Ondoyo, 2013).

According to Starkman (2013) tax administrations need to advise taxpayers on effectively managing their security online. In addition, tax administrations' ICT systems increasingly offer features such as automatic logout of user after a certain period of inactivity, and firewalls to prevent unauthorized entry. Fourth, tax administrations should exercise caution in the choice of technology.

The OECD policy brief cautions against public institutions adopting the latest technology fads, and especially, developing customized as opposed to procuring off-the-shelf technology. It is also equally important to ensure that technology matches both current and future business needs. So, for example, it is probably essential that a particular customs system is able to communicate with the systems of other countries within a common market. Fifth, it is important to ensure management accountability and sixth, promote end user participation by planning their involvement in both development and implementation at the outset of the project. In addition to soliciting end-user inputs during planning, tax administrations should encourage learning by doing through the use of pilots, modular implementation; self-paced learning and so forth, (Haggstad, 2012).

The UK's National Audit Office (2002) also recommends that public institutions should offer users financial incentives to use digital services, in addition to, sensitizing them on how to use new facilities; provide internet access to the disadvantaged (via public and private internet cafes/kiosks); and make government websites more user friendly. Also, the institutionalization of data protection and security policies and standards may ameliorate citizen concerns around protecting their privacy, (Lau, 2003).

KRA introduced Integrated Tax Management System (I.T.M.S.) which gives a single view of a tax payer for all the tax obligations. Integrated Tax Management System was found to be necessary after creation of Domestic Taxes Department. While the merger resulted to improved services for management, it faced challenges of parallel Information Communication Technology (I.C.T) systems. This system denied the users the benefit of integrated view of taxpayer. I.T.M.S. provides a suitable environment for efficient and effective delivery of services to taxpayers .This system has the objectives that provide efficient and effective services to taxpayers and public and reduce interaction with staff, improve tax collection, facilitate seamless sharing of information across KRA and relevant third parties for data-matching purposes in order to detect non-compliance and to facilitate combined enforcement actions. It also provides single view of a taxpayer as well as reducing the cost of collection and compliance. It also facilitates exploitation of advancement in technology and enables staff performance measurement and monitoring, (Amuyunzu, 2013).

In addition, KRA brought about electronic devices such as: - Electronic Tax Registers (ETR) as well as fiscalized devices which generates transaction receipts, daily reports well known as "Z reports" monthly reports well known as "X reports" and well as annual reports, (Kavanagh *et al.*, 2010). Electronic Tax Printers (FP) is used by taxpayers who have computerized accounting system. Such taxpayers can use tax printers and can also use Electronic Signature Devices (ESD) instead if the commissioner finds it necessary. A taxpayer who issues only hand-written retail receipts shall use Electronic Tax Register (ETR) to generate cash sale receipts. A taxpayer issuing hand written financial documents will be required to issue receipts using ETR to be attached to the hand-written invoice, (Desseler & Al Ariss, 2012).

2.3.5 National Public Revenue Growth

Fiscal policies are concerned with government spending and taxation policies. The burden of resource mobilization to finance essential public development projects must be focused on how the government will raise adequate revenues for its development efforts. In the long-run, the government can only rely on the efficient and equitable collection of taxes as a more sustainable way to raise revenue to meet its development goals (Todaro & Smith, 2003). The key question however remains whether by offering huge tax incentives governments in developing nations have been able to increase investments to the extent of increasing economic growth rates and improving the welfare of its citizens, (Francens, 2007).

Studies in both developed and developing nations suggest that tax incentives are an inefficient and expensive way of encouraging investments. Therefore, for the government to be effective in its role of providing quality public goods or services to its citizens and also fund its development projects which are key determinants of investment location decisions, it has to implement policies that will enable it raise adequate revenues to meet its budgetary requirements. The Kenyan government mainly raises its revenues through taxation and over the years it has been increasingly difficult for KRA to meet its revenue targets – KRA has not met its original treasury targets since the 2006/2007 fiscal year. Failure by the institution to raise more revenue and meet budgetary targets implies that budget deficits will continue to be experienced unless proper policies are put in place to seal all revenue loopholes, (Ochieng, Wawire & Thuku, 2005).

There is often interest in assessing the economic impact of an economic policy which may be viewed in terms of business output, value added, wealth, personal income or employment. Any of these measures can be an indicator of the improvements in the economic well-being of residents, which is usually the goal of economic development efforts. The net economic impact is usually viewed as the expansion or contraction of an area's economy (Weisbrod, 2007). Gruber (2005) stated that most countries have perennial budget deficit issues because they adopt ex-ante Balanced Budget Requirements (BBRs) rather than ex-post BBRs and Kenya is no exception to this situation.

Ex ante BBRs requires legislature to pass budgets that are balanced at the beginning of each fiscal year while ex post BBRs require governments to balance their budgets by the end of each fiscal year a situation which may ensure that the government takes measures to collect sufficient revenues to meet its expenditure requirements and spur economic growth. Karingi and Wanjala (2005) in their study on tax reform experience of Kenya established that Kenya has increased revenues to become a high tax-yield (tax revenue as a percentage of GDP) country, sales tax has been replaced by value-added tax (VAT), but VAT productivity is low and poverty concerns have been addressed mainly by exempting low-income households from income tax. Furthermore, there is no VAT for certain basic food commodities (which form a higher proportion of total spending by the poor than wealthier groups).

Government commitment to reforms has been positive. There has also been limited political opposition to reforms. Eachem (2008), states that there is no relationship between budget deficits and the measures of economic performance. He observes that the budget deficit is the result of fiscal policies implemented by the government from either automatic economic stabilizer for example through taxation during recession when output and employment declines or policies aimed at increasing aggregate spending. However, Begg *et al.* (2005) observes that budget deficits may be a poor measure of the government’s fiscal policy because deficits can occur due to other reasons other than fiscal policy for example a decrease in the demand for investments will reduce output and incomes causing a decline in tax revenues.

Morisset and Pirnia (2009) observed that the relatively little importance of tax policy does not mean that it does not have an impact on FDI. A good example is Ireland and many other tax havens whose tax policies have been generally recognized as a key factor in their success to attract international investors to those countries. Therefore, taxation policies do affect the decisions of some investors in choosing a suitable location for their investments. Foreign investors have many alternative methods of structuring and financing their investments and arranging their transactions between related parties located in different countries to ensure maximum returns on their investments. These alternatives have important tax implications which show that tax considerations influence the choices that firms make. The impact of tax rates on investment decisions is generally higher on export-oriented companies than those seeking the domestic market or location-specific advantages hence a more positive response to tax incentives, (Goode, 2004).

For many decades, Kenya has been unable to balance its budget and therefore, meet its financial requirements to fund its development projects. Some people blame the deficit on the growth in spending by the government, as is the case of conservatives in the U.S., while others counter that an insufficiently progressive tax system is failing to raise adequate revenues needed for valuable government projects, as it is the case with the liberals in the U.S. Karl Marx also observed that progressive tax systems alone are very inefficient in an economy. The persistent budget deficits could therefore, be due to a clash between those opposing a raise in taxes and those opposing a cut in government expenditures or it could be something deeper, a structural problem with the very nature of the budgeting process, (Gruber, 2005). This study sought to examine effect of tax policy reforms on National Public revenue growth in Kenya.

2.4 Empirical Literature Review

Tax policy is an administrative apparatus that is built to levy and collect taxes, through application of different tariffs and basis of taxation (Van der Hoek, 2008). Tax policy reform is the process of changing the way the taxes are collected or managed by a government. Tax reformers have different goals, while some seek to reduce the level of taxation of all people by the government, others seek to make the tax system either more progressive or less progressive, (Ghura, 2008). This section reviews the empirical studies on tax policy reforms and economic growth.

2.4.1 Tax Administration

Wawire (2000) did a study on the tax buoyancy and income-elasticity of Kenya's tax system. Tax revenues from various sources were regressed on their tax bases. The study concluded that the tax system had failed to raise necessary revenues. However, the shortcomings of the study were that it never considered other important determinants of tax revenue, for instance the unusual circumstances that could have affected tax. It also never disregarded tax revenue data by source hence it was difficult to say which tax bases contributed more to the exchequer. Finally, it never considered the time series properties of the data used.

Muriithi and Moyi (2003) did a study on the productivity of Kenya's tax structure in the context of the tax reforms focusing on pre and post reform period. In the study, they assessed the buoyancy and elasticity of individual taxes and the overall tax system. Their findings suggested 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 Imperial Journal of Interdisciplinary Research

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2.4.2 Tax Enforcement

Muriithi and Moyi (2003) analyzed the productivity of Kenya's tax structure in the context of the tax reforms focusing on pre and post reform period. In the study, they assessed the buoyancy and elasticity of individual taxes and the overall tax system. Their findings suggested 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. Even though the current study adopted model used by Muriithi and Ronge (2003), it differs from their study in some dimension.

Karingi and Wanjala (2005) evaluated the effect of tax reforms on tax revenue and its composition in the pre and post adjustment period, as measured by the tax/GDP ratios and the share of specific taxes in total tax revenue. In their study, they observed that tax yield rose successfully even before the major tax reform programme to peak on average at 19.7 per cent of GDP by the early 1980s. But this level of tax yield compared to the expenditure-to-GDP ratio was nonetheless insufficient. Consequently, they argued that since one of the main objectives of the TMP was to raise tax yield on a zero-deficit strategy to match expenditures which were on average 28 per cent of GDP, this objective was never achieved and the best performance in terms of tax yield was during the years 1993/4–97/8, when it climbed to 24.4 per cent of GDP.

2.4.3 Human Resource Revitalization

Gale and Samwick (2014) investigated the effects of income tax changes on economic growth. The study utilized a descriptive approach and targeted the European economies to study the effects of income tax changes on economic growth. The study established that capacity development at the entity level would entail strengthening of dimensions, such as the organizational vision, mission and strategy; culture, structure and competencies; processes; human, financial and information resources; interrelationships with key stakeholders; and infrastructure. At the human resources level, capacity-building would particularly focus on professional competencies; performance management; values, ethics and attitudes; communications skills; and interrelationships and teamwork in the workplace. Capacity development of human resources in the public sector, however, cannot be isolated from reform at the enabling environment and organizational levels.

Abdella and Clifford (2010) conducted a study on the Impact of Tax Reform on Private Sector Development in Ethiopia. A survey of taxpayers, tax practitioners and tax officials based in Addis Ababa was conducted. For the survey, a sample of 299 respondents was interviewed from business enterprises (both VAT-registered and unregistered, lists of which were obtained from the Addis Ababa Revenue Agency and the Ethiopian Revenue and Customs Authority), as well as tax practitioners and tax officials in Addis Ababa. 66 percent of the respondents were VAT-registered businesses, 32 percent were non- VAT-registered businesses while the balance comprised tax officials and practitioners. Moreover, owing to the use of a stratified random sampling technique, all sectors of the economy are represented in the sample. The collected primary data were edited for consistency, coded, entered into a computer and verified, following which they were analysed.

Osebe (2013) carried out an analysis of factors affecting tax compliance in the real estate sector in Kenya: a case study of real estate owners in Nakuru Town. The study specifically sought to determine the effect of tax compliance cost, tax education and knowledge, fines and penalties and perceived opportunity for tax evasion on tax compliance in the Real Estate sector. The study was guided by Theory of Planned Behavior. The study used explanatory research design. A sample size of 271 was drawn from the target population of 841 real estate investors. Data was collected using structured questionnaire, coded, keyed and analyzed quantitatively using both descriptive and inferential statistics. The study findings showed that compliance cost had the negative effect on level of tax compliance. However, tax knowledge and education had positive effect on level of tax compliance among real estate investors. Similarly, fines/penalties had positive effect on level of tax compliances, while perceived opportunity for tax evasion had negative effect.

In another study, Gitau, Gituma and Aden (2014) investigated the tax planning and financial performance of small-scale enterprises in Kenya. They argued that in order to ensure the efficiency and effectiveness of activities, reliability and compliance with applicable laws, small scale enterprises need to have adequate tax controls. The study sought to find out the extent to which expenditure on capital assets in tax planning, to determine how tax planning by Capital Structure influence performance of small enterprises, find out how tax planning through Advertisement expenditure influence performance of small enterprises and to assess how tax planning through Legal Forms of enterprise influence performance of small enterprises in Embu CBD. The study had a total population of one hundred and forty-nine respondents and a sample of 30 percent was drawn from each stratum. The data was then presented in form of Percentages and Tables. The study found the influence of tax planning by capital structure, tax planning in investment, capital asset planning through advertisement expenditure and found that the Legal Forms of small enterprises in Embu CBD has no significant relationship.

2.4.4 Business Automation System

Sagas, Nelimalyani and Kimaiyo (2015) did an assessment of the impact of electronic tax register on revenue collection by Kenya Revenue Authority western region, Kenya. Findings from their study indicated that indicated that 75% of the respondents were of the opinion that ETR machines have helped to curb cases of tax evasion 86% of the respondents were of the opinion that ETRs have helped increase revenue collection due to their efficient nature. Wang'ombe (2009) did a study on the revenue productivity and some administrative factors of the Kenyan tax system for the period 2001–2008. The result of this study came up with buoyancy estimates of the total tax system as 1.26

while elasticity was 1.27. The study thus concluded that the tax system in general was both elastic and buoyant implying that tax reforms had greatly improved productivity. Discretionary tax measures had a very small effect on tax productivity implying improved efficiency.

Wamathu (2013) studied the effects of electronic taxation on financial performance of audit firms in Kenya. From the finding the study found that there has been timely filing of returns since inception of I-tax, there has been a reduction in audit period due to introduction of I-Tax, respondents were quite knowledgeable. , system failure when login were less, I-Tax was user manual friendly , I-tax system was reliable and that I-tax was not user friendly, Itax system cost effective, I-tax system was cost effective and respondent were aware of that I-Tax system was electronic cash register and electronic signature device. She recommended that there is need for the Kenya Revenue Authority to invest on technology in order to reduce the system failure as the study revealed that system failure affects system logins. System failure discourages use of technology.

Muita (2010) in her thesis has also done a related study on the factors that influence adoption and use of e-filing system among Large Taxpayers in Kenya. The study examined the skills required by the users of e-filing, the technology required and the tax authority's preparedness in enhancing the adoption of tax compliance-based technology. The study found that for e-filing to effectively take off in Kenya skills, infrastructure and a conducive business environment are needed

2.5 Critique of Existing Literature

Wang'ombe (1999) analyzed the revenue productivity and some administrative factors of the Kenyan tax system for the period 1989–1998. The result of this study came up with buoyancy estimates of the total tax system. The study thus concluded that the tax system in general was both elastic and buoyant implying that tax reforms had greatly improved productivity. Discretionary tax measures had a very small effect on tax productivity implying improved efficiency. Using total GDP, Wawire (2000) estimated the tax buoyancy and income-elasticity of Kenya's tax system.

Tax revenues from various sources were regressed on their tax bases. The study concluded that the tax system had failed to raise necessary revenues. However, the shortcomings of the study were that it never considered other important determinants of tax revenue, for instance the unusual circumstances that could have affected tax www.ccsenet.org/ijef International Journal of Economics and Finance Vol. 6, No. 10; 2014 101 revenue productivity. It also never disintegrated tax revenue data by source hence it was difficult to say which tax bases contributed more to the exchequer.

Finally, it never considered the time series properties of the data used. Muriithi and Moyi (2003) analyzed the productivity of Kenya's tax structure in the context of the tax reforms focusing on pre and post reform period. In the study, they assessed the buoyancy and elasticity of individual taxes and the overall tax system. Their findings suggested 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. Even though the current study adopted model used by Muriithi and Ronge (2003), it differs from their study in some dimension. First, this study used data of since 1963–2010. Second, nominal figures were converted to real figures. Finally, this study considered stationary of a time series data and the data regressed for the whole period of the study which was not applicable in different economic conditions.

2.6 Research Gaps

A number of gaps have not been addressed by the reviewed literature and need to be addressed. First, the standardization of procedures which includes procedural manuals and electronic forms should be made widely available to the tax payers to make the services more transparent as well as reducing discretion of Officials and strengthen accountability and possibilities for control. Secondly, the tax system should be simplified because complex tax system makes it difficult to understand and gives Officials discretionary powers which encourage corruption (Ghura, 2008).

The other variable that needs fast track address is professional standards in tax administration which needs to be put in place starting with professional managers as opposed to politically appointed senior managers. More so staff needs to be recruited and promoted on merit while compensation needs to be sufficient and regular trainings should be adapted to the needs of staff members. In addition, responsibilities should be clearly defined and functions duly separated. Staff rotations schemes should be put in place enhance experience, (Karingi *et al.*, 2005).

2.7 Summary

Tax reform is aimed at raising adequate revenues to finance public expenditures on social goods and services. The issue has grown in importance in light of the recent fiscal crises in most countries. Fiscal crises have been proven to be the mother of tax reforms in most countries. The views of tax reform to mobilize tax revenues have been increasing in the field of public finance among the academia and international institutions because countries are faced with declining external assistance in general. The recent global crisis has put considerable strain on inflows of international resources which have effectively forced these countries to focus on domestic resource mobilization. Actual empirical evidence on the impact of globalization on tax policy remains quite mixed (Bird, 2013).

In understanding the tax reform experience in Kenya, in practice, the role of the tax system has three common objectives of a tax system to raise revenue to fund government operations; to assist in the redistribution of wealth or income; and to encourage or discourage certain activities through the use of tax provisions. This chapter contains the facts and finding of other scholars and the theories that contribute to the factors influence tax revenue growth. This is based on Adams Smith canons of taxation theory. Further, it explanations the conceptual framework model in terms of dependent and independent variables. The empirical review and critique of the study was emphasized and concludes the essence of the study. The next chapter addresses the research methodology.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is defined by Leedy and Ormrod (2001) as the general approach the researcher takes in carrying out the research project. This chapter covers the methodology and describes the research design, the target population sample size, sampling procedure, data collection tools and the administration and procedure for data collection and analysis.

3.2 Research Design

The study adopted descriptive research design. This enabled the researcher to deeply analyze the phenomena with a view to generalization about a wider population which would have been suitable for finding out the effects of taxation on tax revenue growth. According to Mugenda and Mugenda (2003), a descriptive research design is flexible and it provides an opportunity to examine all aspects of a problem and it captured all the characteristics of the target population. The major purpose of adopting descriptive design method is that it measures the accuracy of the variables. Descriptive design is further justified because it focuses on complex analysis to bring out the correlation of variables. Descriptive research was restricted to facts findings and may result in formulation of important principles of knowledge and solutions to significant problems. It's more than collection of data and it involves measures, classification, analysis and interpretation (Kothari, 2008). The researcher considered this design as appropriate because of the purpose of the study, topical scope, researcher involvement, time period over which the data was collected, nature of data to be collected and the type of analysis to be performed.

3.2.1 Research Philosophy

Research philosophy outlines the way data of a certain phenomenon should be gathered and analyzed (Saunders, Lewis, & Thornhill, 2007). According to Saunders, et al., (2007), research philosophy can be divided into three categories namely; positivism, interpretivism and realism. Positivism research philosophy reflects the belief that reality is stable. This reality can be observed and described from an objective viewpoint without necessarily interfering with the phenomenon itself. Positivists' belief that hypothesis developed from existing theories can be tested by measuring observable social realities, thus positivism is derived from natural sciences. Based on previously observed, explained realities and their interrelationships, it is then possible under positivism research philosophy to make predictions.

Hatch and Cunliffe (2006) asserts that positivism research philosophy can be used to investigate what truly happens in organizations through scientific measurement of people and system behaviors. Moreover, any knowledge that is not based on positivist thought is unscientific and invalid. This research philosophy can be used to examine the effect of tax policy reforms on national public revenue growth in Kenya. Interpretivism research philosophy is mostly applied in social sciences. In fact, Hatch and Cunliffe (2006), refers to interpretivism as anti-positivist indicating the difference between positivism and interpretivism.

Under interpretivism, it is assumed that individuals and groups make sense of a situation based on their individual experiences, expectations and memories. Thus, individual experiences are the basis in which meaning is constructed. Given that people have different experiences, there are many different interpretations of reality. This therefore calls for an understanding of factors that affect how things are interpreted by different individuals. In other words, interpretivism looks for details of the situation with the aim of understanding the reality behind the situation. Saunders *et al.* (2007) asserts that interpretivism is highly contextual and its wide generalization is limited because the analyst relies on how people feel and think in order to understand the meanings and interpretations of individuals from their point of view (Eriksson & Kovalainen, 2008).

On the other hand, realism is based on the belief that reality exists and is independent of human consciousness. Realism recognizes that peoples' perception of their world is influenced by social objects and phenomena that are external to, or independent of them (Saunders *et al.,* 2007). Realist belief that reality is pre-interpreted and it may exist whether it is proven or not. This implies that under realism research philosophy, reality may exist without science or observations. Therefore, understanding peoples' socially constructed meanings and interpretations requires broader understanding of social forces that influence peoples' views and behaviors (Saunders *et al.*, 2007).

Given these three research philosophies, the choice of the research philosophy was based on the hypothesis that the researcher intended to test. In this regard, the research philosophy that best fits the objectives of this study was positivism. Under positivism research philosophy, it is possible to test hypothesis and generalize the findings. However, to test the hypothesis, there is need to translate the underlying concepts into measurable forms (Saunders *et al.,* 2007). The study reflects the philosophy of positivism which is an approach that seeks facts or causes of social or business phenomena, with little regard to the subjective state of the individual. Considering the purpose of this study, the type of investigation, the extent of researcher involvement, the time period over which data will be collected and the type of analysis, the philosophical foundation guiding this study is positivism. This is because the researcher is independent from what is being observed. By adopting a positivism view, this study focused on theory testing wherein theory was first adopted as the framework for developing and testing hypotheses. This emphasizes the deductive orientation adopted in this study.

3.3 Target Population

According to Mugenda and Mugenda (2003) population means all elements in a research area of interest. It is the group of individuals or objects from which samples are taken for measurement. Target population is the totality of cases that conform to some designated specifications, which could be people, events or things of interest to the researcher (Sekaran, 2000). According to Castillo (2009), target population is an entire group of individuals or objects to which researchers are interested in generalizing their conclusions. It also refers to the people events or records that contain the desired information for the study that determine whether a sample or a census should be selected (Cooper & Schinder, 2011). The target population was the employees of Kenya Revenue Authority in all the five regional Offices across the country.

The interest of this target population was driven by the fact that KRA requires very highly skilled workers to deliver on their respective mandates as well as vision 2030. The target population comprised of workers from Risk Management and Internal Audit Department, Ethics and Internal Audit Department, Information Communication Technology Department, Finance Department, Administration and Logistics Department, Research and Corporate Planning Department, Human Resource Department, Compliance, Risk and Quality Management Department and Kenya school of Revenue Administration. The categories of staff that were selected for the study included; Risk managers, Internal Audit officers, and Information communication technology officers, Finance Officers, Administrative Officers, Logistic Officers, Compliance & Quality managers, corporate tax managers and Human resource Officers.

3.4 Sample and Sampling Techniques

This study sampled 157 employees of KRA from five (5) regional offices. The choice of the five regional offices was informed by the fact that KRA is segmented into the five regions representing the whole country in matters of collection and administration of tax. The sample was selected randomly from each stratum and sample size of 532 employees represented 28% of the target population. This percentage was used because according to Creswell (2011) and Sekaran (2006) an ideal sample size of 5-20% of population is considered acceptable for most research purposes as it provides the ability to generalize for a population. The sample size was derived using the formula provided by Kothari (2008) based on 95% confidence level and 5% margin of error as follows;

$n= z^2.p.q.N/e^2(N-1)+z^2.p.q$

Where; N=Size of the sample

P=Sample population=-p

Z= the value of the standard variate at a given confidence level.

N = the estimate of the population size.

$$n=\frac{1.96*1.96*0.5*562}{0.05*0.05(562-1) +1.96*0.5*0.5}=157$$

According to Howitt and Cramer (2004) the sampling technique is the process of selecting the specific methodology to use in deciding the entities in the study. The sample should be as representative as possible of the entire population. The Researcher used stratified random sampling method to pick a sample element. Baird (2007) observed that, stratified sampling technique produces estimates of overall population parameters with greater precision and ensures that a more representative sample is drawn from a relatively heterogeneous population.

3.4 .1 Sampling Frame

According to Cooper and Schindler (2011), a sampling frame is the list of elements from which the sample is to be drawn for the purpose of research. A sample frame must thus contain an up-to date list of all those that comprise the target population. Cooper and Schindler (2008) and that a sampling frame should be a complete and correct list of population members only. For the purpose of this study, the sampling frame was sourced from KRA's regional Offices across the Country. This therefore constituted of all the employees who were in the middle and senior management. These categories of employees were selected because they are core, have expertise and more technical knowledge in tax policies and could have participated in tax policy reforms over the period under study.

Table 3.1: Sampling Frame

Officer category/Regional Office	Nairobi HQ	Mombasa	Kisumu	Nakuru	Nyeri	Total.	Percentage
Risk managers	10	3	3	3	3	22	3.9
Internal audit officers	35	18	12	10	6	81	14.4
ICT officers	28	20	17	18	15	98	17.4
Finance officers	30	20	18	10	9	87	15.5
Admin & lgistic officers	28	18	15	10	8	79	14.1
Compliance & quality officers	36	22	18	18	10	104	18.5
Corporate Tax Officers	28	17	10	8	8	71	12.6
Human Resource Officers	6	5	3	3	3	20	3.6
Total	**201**	**123**	**96**	**80**	**62**	**562**	**100**
Percentage	**35.8**	**21.9**	**17.1**	**14.2**	**11**	**100**	

Table 3.2: Sample Size

Region	Officer category	Population	Sample (28%)
Nairobi	Risk managers	10	3
	Internal audit officers	35	10
	ICT officers	28	8
	Finance	30	8
	Admin & Logistic Officers	28	8
	Compliance & quality officers	36	10
	Corporate Tax Officers	28	8
	Human Resource Officers	6	2
Mombasa	Risk managers	3	1
	Internal audit officers	8	2
	ICT officers	20	6
	Finance Officers	20	6
	Admin & Logistic Officers	18	5
	Compliance & quality officers	22	6
	Corporate Tax Officers	17	5
	Human Resource Officers	5	1
Kisumu	Risk managers	3	1
	Internal audit officers	12	3
	ICT officers	17	5
	Finance Officers	18	5
	Admin & Logistic Officers	15	4
	Compliance & quality officers	18	5
	Corporate Tax Officers	10	3
	Human Resource Officers	3	1
Nakuru	Risk managers	3	1
	Internal audit officers	10	3
	ICT officers	18	5
	Finance Officers	10	3
	Admin & Logistic Officers	10	3
	Compliance & quality officers	18	5
	Corporate Tax Officers	8	2
	Human Resource Officers	3	1
Nyeri	Risk managers	3	1
	Internal audit officers	6	2
	ICT officers	15	4
	Finance Officers	9	3
	Admin & Logistic Officers	8	2
	Compliance & quality officers	10	3
	Corporate Tax Officers	8	2
	Human Resource Officers	3	1
Total		**562**	**157**

3.4.2 Sampling Technique

The researcher chose stratified random sampling because the data was homogenous and it increased the sample's statistical efficiency, provides adequate data for analyzing the various sub populations and enables different research methods and procedures to be used in different strata (Cooper & Schindler, 2011).

This sampling method is suitable because of ease of assembling the sample and it is also considered as a fair way of selecting a sample from a given population since every member is given equal opportunity of being selected. The study generated forty (40) strata derived from eight (8) categories of employees namely; Risk managers, Internal audit officers, Information Communication Technology Officers, Finance Officers, Administration and Logistic officers, Compliance and quality managers, Corporate Tax managers and Human Resource Officers From five (5) Regional Offices

3.5 Data Collection Instruments

This sets out how data for the study was collected and analyzed. Data collection instruments refer to the tools used in obtaining information from respondents. To achieve the research objectives both primary and secondary data was used to answer the research questions. Primary data collection was via a questionnaire as this is an efficient and convenient way of gathering the data within the resources and time constraints. A questionnaire is a systematically prepared form or document with a set of questions deliberately designed to elicit responses from respondents or research informants for the purpose of collecting data or information (Kumar, 2011). According Polit and Beck (2004), questionnaires are structured instruments that consists a set of questions in which the wording of both the questions and response alternatives is predetermined.

Questionnaires consisting of structured and non-structured questions were used to collect data from the top management, middle level management and operational staff of the Kenya Revenue Authority in the five regional Offices. The structured questions were used to collect quantitative and qualitative data. The structure of the questionnaire included structured and semi-structured questions as this provided the flexibility for specific and unique responses to some of the questions. The questionnaires contained open ended and closed ended questions all briefly stated and well-focused in recognition of the busy schedule of the participants. The structured questions are normally closed ended with alternatives from which the respondent is expected to choose the most appropriate answer.

The main advantage of these types of questions is that they are easy to analyze and require a lower investment in terms of time. Unstructured questions will present the respondent the opportunity to provide their own answers. They gave the respondents complete freedom of response and permit an individual to respond in his or her own words. These questions permitted greater depth of response, are simpler to formulate and the response gave an insight into the feelings, background, hidden motives, interests and decisions of the respondent. The researcher used questionnaires as data collection instruments for the research. A 5-point Likert scale be applied and it expressed a series of statements that express the respondents' views from strongly agree to strongly disagree.

3.6 Data Collection Procedure

The researcher asked for permission to carry out the research from the Human Resource manager KRA head Office. The researcher then engaged five (5) research assistants. The researcher's own opinions did not influence the respondent to answer questions in certain who were trained on data collection. The study administered the questionnaire individually to all respondents of the study. The study exercised care and control to ensure all questionnaires issued to the respondents were received and to achieve this, the study maintained a register of questionnaires, which were sent, and which were received. The questionnaire was administered using a drop and pick later method. In addition to the primary data, secondary data was used and collected through desk top research technique as this is most appropriate for literature and materials. The researcher started by explaining to all participants in the study the role they were expected to play and the importance of providing honest information through a cover letter forwarding the questionnaire.

The researcher also assured the participants that the information they gave would be treated with strict confidence. An envelope marked “questionnaire” and thesis topic was provided so that once the employee completed the questionnaire, they sealed it to ensure confidentiality was maintained within the organization and guarded against potential victimization by the human resource division. The researcher then proceeded to administer the questionnaires through the designated officers and co-ordinate with them to ensure respondents have adequate time to complete them. The researchers applied the questionnaire randomly to the respondents, and allowed them one week to respond, after which the questionnaires were picked and data was analyzed. Both hard and soft copies of the questionnaire were used in this study.

3.7 Pilot Study

According to Connelly (2008), extant literature suggests that a pilot study sample should be 10% of the sample projected for the larger parent study. In order to test validity of data collection instruments, the researcher sampled 16 questionnaires; picked some few respondents of the target population before the actual research period for a sample study. This helped the researcher to attest how reliable the data collected by the questionnaires would be.

3.7.1 Validity of Research Instruments

Shuttleworth (2009) contended that after the items in a questionnaire have been written, it is mandatory to subject the questionnaire to validation process. In this way the items were reviewed in terms of their clarity, the appropriateness of the language and expressions, the suitability of each item with references to the research question. To ensure that there was consistency in the data resulting from this study, measures such as isolating respondents to ensure that answers to specific questions are not discussed, was employed during data collection to limit interference with the integrity of the results. Content validity which was employed by this study is a measure of the degree to which data collected using a particular instrument represented a specific domain or content of a particular concept. Expert judgement opinions helped to establish content validity and thus, the researcher obtained assistance from the supervisors of JKUAT in order to improve content validity of the instrument.

3.7.2 Reliability of Research Instruments

Cronbach's alpha was used to test the reliability of the measures in the questionnaire (Cronbach, 2013). In this study, the questionnaire was tested on 16 respondents drawn from the sample to ensure that it was relevant and effective. Reliability was tested using questionnaire duly completed by randomly selected respondents. These respondents were not included in the final study sample in order to control for response biasness. Cronbach's alpha coefficient was generated to assess reliability. The closer Cronbach's alpha coefficient is to 1, the higher the internal consistency reliability. A coefficient of 0.7 is recommended for a newly developed questionnaire.

3.8 Data Analysis and Presentation

Data was analyzed using both descriptive and inferential statistics. Descriptive statistics such as mean, standard deviation and percentage were used on raw data. The inferential statistic, correlation and linear regression were used. A computer package, Statistical Package for Social Science (SPSS) version 21 for windows was used to do the analysis. Descriptive statistics enables researcher to describe a distribution of measurement (Mugenda & Mugenda, 2008). Inferential statistics deals with analysis, interpretation and decision on the basis of results (Nassiuma & Mwangi, 2004). The multiple regression analysis to predict the effects of tax policy reforms (independent variables) on public revenue growth in Kenya (dependent variable) was estimated as Model 1. In addition, the study considered estimating the moderating effect of business automation system on public revenue growth as Model 2.

The following models were used.

Model 1- Capturing the effect of tax policy reforms on public revenue growth

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$

Model 2- Capturing the moderating effect of business automation system on the relationship between tax policy reforms and public revenue growth

$Y = \beta 0 + \beta_1 X_1 {*} Z + \beta_2 X_2 {*} Z + \beta_3 X_3 {*} Z + \varepsilon$

Where;

Y= Public revenue growth

β_0 = Constant

β_i = Coefficient for X_i = (i=1,2,3)

X_1= Tax Administration

X_2 = Enforcement

X_3 = Human Resource revitalization

Z = Business Automation System.

ε = error term.

On the other hand, qualitative data collected from the open-ended questions was analyzed using content analysis. This is because according to Scruggs and Mastropieri (2006), if research is subjective in nature and requires interpretation of views and perception of others, content analysis method was suitable. Qualitative research method is a technique used for objective interpretation of content of text data through systematic classification process of coding and identifying themes of patterns. Transcription of the qualitative data was done. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of SPSS. Quantitative data was displayed using tables, pie charts and diagrams.

To test the significance of the overall model, hypothesis was tested using analysis of variance (ANOVA). Using the *p* value from the ANOVA table, the study rejected the Null hypothesis if the *p* value is less than 0.05 meaning that tax policy reforms play a significance role in public revenue growth.

The multiple R square (R squared) was used to measure the goodness of fit of the overall model. The model measured the amount of variation in the dependent variable (Public revenue growth) explained by the overall model and ranged between 0 and 1. The closer it was to 1 then the more significant effect and thus the better the model. Correlation analysis was used to test the strength and direction of the relationship between the variables through generation of the Pearson correlation coefficient (*r*). The r lies between -1 and 1 and the closer the *r* is to -1 the stronger the negative relationship between dependent and independent variables. Before inferential statistics was done the study conducted diagnostic tests to test for the assumptions of the regression analysis.

3.9 Diagnostic Tests

The study carried out diagnostic tests on the models to ascertain whether the assumptions of the ordinary Least Square holds. Brusse *et al.* (2007), documents that the models should be linear in parameters, the independent variables are uncorrelated with the disturbance term and the variance of the error term being zero.

3.9.1 Multicollinearity Test

Multicollinearity is the general intercorrelation among explanatory variable. Existence of a high degree of Multicollinearity makes it difficult to isolate the effect of each independent variable on the dependent variables. Multicollinearity violates the assumption no. 10 of the Classical Linear Regression Model which states that there should be no multicollinearity among explanatory variables. Multicollinearity was detected using coefficient of determination (R^2) and the Variance Inflation Factor (VIF). If $R^2$is high in excess of 0.8 with few significant t–ratios and VIF > 10, then multicollinearity is likely to be present. Multicollinearity leads to large variances and standard errors of OLS estimators which make it more difficult to estimate the true value of the estimator. Multicollinearity was eliminated by transforming the variables.

3.9.2 Heteroscedasticity Test

Heteroscedasticity occurs when the variance of the error term is not constant in each period and for all values of the independent variable. This assumption violates the assumption of classical linear regression model which assumes that the variance of the error term remains constant. This assumption ensures that each observation is equally reliable so that estimates of the regression coefficients and test of hypothesis about them are not biased. Heteroscedasticity may also occur when some important variables are omitted from the model. In this study, heteroscedasticity was tested by Breusch-pagan test to establish whether the residuals had a constant variance. Heteroscedasticity is present if the P-value is less than 0.05.

3.9.3 Autocorrelation Test

Autocorrelation occurs when the variances of the error term are sequentially interdependent. According to the assumptions of Classical Linear Regression Model, the disturbance occurring at one point of observation should not be related with any other disturbance occurring at another point at the set of observation (Bera & Kim, 2002).

Autocorrelation leads to biasness and inconsistency of parameter estimates. Autocorrelation is detected by use of Durbin Watson (DW) test. This is the most celebrated test for detecting autocorrelation. A DW of zero implies that there exists positive autocorrelation, while DW equal to 4 implies high negative correlation level. A DW value between 2 and 2.5 implies that there is no correlation. Presence of autocorrelation was to be eliminated by use of correct specification of functional form of the model.

3.9.4 Normality Test

Normality tests were conducted to determine whether the data collected from the respondents is normally distributed. If the data is normally distributed then the study would employ parametric tests. The researcher used the skewness and Jarque-Bera values to test for normality of the data. The classical linear regression assumes normally distributed error term. From Table 2, for normality of data, skewness statistics should be within acceptable range of ±3 and the Jarque-Bera values below 5.9.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study and it is arranged according to the four research objectives that the study sought to answer. The chapter is divided into three subsections namely; introduction, background information about the respondents and the research objectives that the study sought to answer.

4.2 Response Rate

Response rate was critical for this study due to the fact that the fixed sample quantitative data obtained from primary data of the qualifying respondents implied that there was need for a similar response rate from the questionnaire used for the construction of the quantitative primary information. The study sampled 157 respondents drawn from five (5) KRA regional offices. This was a costly and involving process which took the entire time allocated in the time plan. However, this enhanced the achievement of all the intended study objectives. The study utilized a questionnaire presented to the respondents on a personal basis to increase the response rate. The response rate is presented in Table 4.1

Table 4.1: Response Rate

Category	Frequency	Percentage (%)
Responded	149	94.9
Did not respond	8	5.1
Total	**157**	**100.0**

From the study, the researcher successfully received responses from 149 respondents. The instruments were complete and taken as valid for data analysis which translated to a response rate of 94.9 %. The 8 questionnaires that were either not received at all or were received incomplete accounted for 5.1% of the sample and therefore not considered in the analysis. This was a dependable representation of the targeted population thus adequate for the study analysis. Mugenda and Mugenda (2012) 50% response rate is adequate, 60% is good, while 70% and above is rated to be very good. This implies that the response rate of 94.9% is satisfactory and good for analysis, drawing conclusions and making recommendations.

4.3 Reliability Test

The Cronbach's alpha approach is effective in determining the reliability of the questionnaire. The researcher utilized this approach in the mock survey where sample questionnaires were issued to a group of respondents. The main areas of concern were language and question clarity, and suitability. The Cronbach's alpha was employed in measuring the internal consistency or reliability of the questionnaires. The study conducted a pretest to test the reliability of the research instrument. Table 4.3 shows the results.

Table 4.2: Reliability Analysis

Factor	Cronbach's Alpha	Number of Items	Comments
Tax administration	0.741	14	Accepted
Tax enforcement	0.720	12	Accepted
Human resource revitalization	0.743	15	Accepted
Business automation system	0.729	4	Accepted

From the pretest, all the alpha values were more than 0.7 as indicated in Table 4.2. Tax administration had an alpha value of 0.741, Tax enforcement had Cronbach's alpha value of 0.720, Human resource revitalization had an alpha value of 0.743, and Business automation system had a Cronbach's alpha value of 0.729. Accordingly, all the Cronbach alpha values were found to be above 0.7 for all the variables and therefore the construct was found to be acceptable. Based on results in table 4.1 it is clear that the research instrument was reliable with Cronbach's alpha value of above 0.7. These results correlate with Mugenda and Mugenda (2003) argument that coefficient of 0.6 to 0.7 is a commonly accepted rule of thumb that indicates acceptable reliability and 0.8 or higher indicated good reliability.

4.4 Demographic Information

This section concerns itself with outlining and presenting the findings obtained from the questionnaires distributed to the respondents. Prior to the objectives guiding the study, it was of great essence to find out the background information of the participants. The analysis relied on this information of the respondents so as to classify the different results according to their knowledge and responses. This was determined by looking at the gender of the respondents, their age brackets, level of education of the respondents, working experience and their designations.

4.4.1 Gender of the Respondents

The research sought to find out the gender of the respondents. The subject of gender is considered fundamental in this study largely because it could help the researcher get a balanced view from both genders. Table 4.3 shows the distribution of the respondents by gender.

Table 4.3: Gender of the Respondents

Gender	Frequency	Percent
Male	89	60.1
Female	59	39.9
Total	149	100.0

From the study, eighty nine (60.1%) of the respondents were male respondents while 59 (39.9%) of them were female. This implies that the number of male staffs in the Organization is more than the female staffs. These results show that KRA has both male and female staffs and views expressed in these findings can be taken as representative of the opinions of both genders. The findings show that the enterprises studied had both male and female members. The findings imply that the views expressed in these findings are gender sensitive and can be taken as representative of the opinions of both genders.

4.4.2 Age of the Respondents

The study sought to determine how the respondents were distributed across the various age brackets and consequently their opinions on the topic of study. Table 4.4 is a tabular presentation of the results.

Table 4.4: Age Brackets of the Respondents

Age Category	Frequency	Percent
26 - 35 years	47	31.5
36 - 45 years	67	45.0
Over 45 years	35	23.5
Total	149	100.0

Table 4.4 shows that sixty-seven of the respondents (taking 45.0% of the responses) reported that they were between 36 and 45 years of age. The second category comprised of forty-seven respondents (equal to 31.5%) whose ages were between 26 years and 35 years, while the remaining 23.5 percent (35 respondents in number) indicated that their ages were more than 45 years. This implies that the Institution employs staff of different age brackets from 26years but are mainly dominated by middle aged population hence the results depicted in this study are likely to be representative of the real situation regarding the Effects of tax policy reforms on national public revenue growth in Kenya.

4.4.3 Level of Education

The study sought to establish the highest academic qualifications attained by the respondents. The results are as depicted in Table 4.5

Table 4.5: Level of Education of the Respondents

Academic Qualification	Frequency	Percent
College	49	32.9
Bachelor's degree	71	47.7
Postgraduate	29	19.5
Total	**149**	**100.0**

The outcomes depicted in Table 4.5 show that the majority of the respondents had at least a bachelor's degree and hence understood the information sought by this study. According to the foregoing tabulation, 47.7% of the respondents unanimously reiterated that they had attained a university level of education. Thirty two percent of the respondents comprised of stakeholders who had attained a college level of education as their highest level of education, while nineteen percent of the respondents had a postgraduate level of education. These outcomes mean that majority of the respondents had at least a college level of education and hence understood the information sought by this study.

4.4.4 Working Experience

The respondents were requested to indicate the number of years they had been working in the Organization. According to Figure 4.1, 47.9% of the respondents unanimously indicated that they had been working in the Organization for a period of 5 to 10 years, 26.8% of them had been working in KRA for a period of 11 to 15 years, 18.1% of them had been working in the Institution for less than five years whereas 6.7% of them had been working in the Organization for a period of more than 15 years. This implies that most of the respondents participating in this study had been working in the Organization for an ample time thus they were conversant with the information sought by the study.

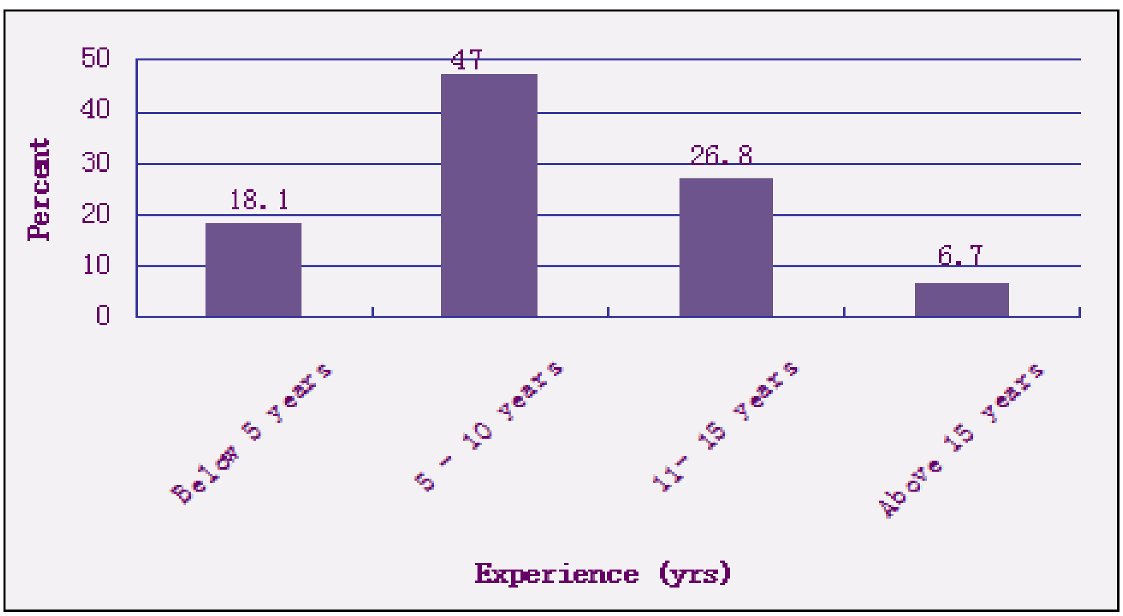

Figure 4.1: Respondents Working Experience

4.4.5 Respondents Designation

This study sought to establish the distribution of the respondents in terms of designations in their Institution as outlined in Figure 4.1. Fourty five percent (45.6%) of the respondents comprised of employees working in the lower cadres like accountants, and supervisors, 42% of them were assistant managers, 9.4% were managers while 3.4% of the respondents were the senior managers working in KRA. These responses show that the respondents that participated in the study were mainly those involved in the implementation of tax policy reforms in the Organization.

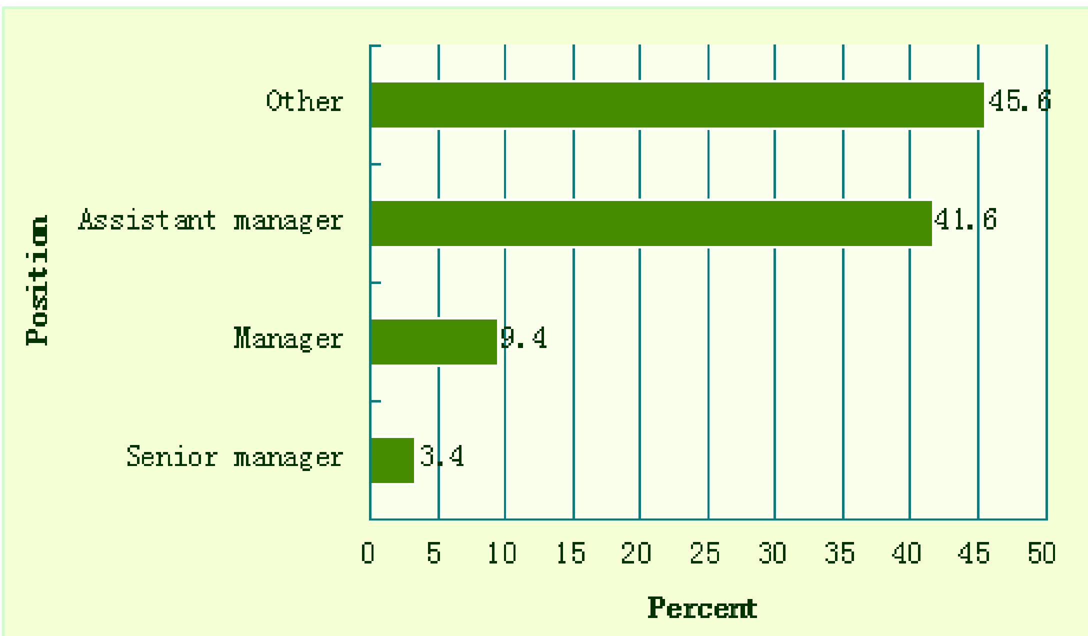

Figure 4.2: Respondents' Position in the KRA

4.5 Tax Policy Reforms and National Public Revenue Growth

This section presents the findings and discussion on national public revenue growth and the KRA reforms. The study sought to find out the extent to which KRA reforms influence public revenue growth in Kenya.

4.5.1 Public Revenue Growth

The study sought to determine the extent to which KRA reforms influence Public revenue growth.

Table 4.6: Extent to which KRA Reforms Influence Public Revenue Growth

Extent	Frequency	Percent
Not at all	1	.7
Little extent	39	26.2
Moderate extent	60	40.3
Great extent	45	30.2
Very great extent	4	2.7
Total	**149**	**100.0**

According to the results depicted above, 40.3% of the respondents reiterated that KRA reforms influence public revenue growth in Kenya to moderate extent, 30.2% of them indicted to great extent, 26.2% of the respondents reiterated that KRA reforms influence public revenue growth in Kenya to little extent, while 0.7% indicated that KRA reforms do not influence public revenue growth in Kenya at all. These results are an indication that reforms have significant influence on public revenue growth.

The study further sought to establish the extent to which KRA reforms influence various aspects of public revenue growth in Kenya. Table 4.7 shows the results obtained.

Table 4.7: Extent to which KRA Reforms influence aspects of Revenue Growth

Aspects of public revenue growth	Mean	Std dev
Government budgets	3.1342	.85153
Per capita income	2.9329	.76815
Gross fixed capital formation	2.8456	.76868
Gross savings rate	3.0470	.85689
Overall Mean	**3.0678**	**.0948**

From the study, majority of the respondents indicated that KRA reforms influence government budgets to a moderate extent as shown by a mean score of 3.1342. This was followed by gross savings rate, then per capita income and gross fixed capital formation all to a moderate extent as shown by mean scores of 3.0470, 2.9329 and 2.8456 respectively. These results imply that KRA reforms have moderate influence on various aspects of public revenue growth in Kenya.

The study further sought to establish the respondent's level of agreement with various statements on growth of national public revenue as a result of tax policies at KRA. The results are as depicted in Table 4.8.

Table 4.8: Growth of National Public Revenue as a Result Of Tax Policies

Statements	Mean	Std dev
KRA reforms facilitate Government budgets	2.8591	.77128
KRA reforms lead to improved tax collections	2.8658	.75029
KRA reforms results to improve per capita income	3.2215	.82073
KRA reforms enhances gross fixed capital formation	2.8926	.78103
KRA reforms results to improved gross savings rate.	3.1342	.84356
KRA reforms facilitates achievement of public service targets	2.9060	.74745
Overall Mean	3.1691	.4325

Table 4.8 shows that most of the respondents showed impartiality on that KRA reforms results to improve per capita income, KRA reforms results to improved gross savings rate, KRA reforms facilitates achievement of public service targets, KRA reforms enhances gross fixed capital formation, KRA reforms lead to improved tax collections and KRA reforms facilitate Government budget. The corresponding mean scores were 3.2215, 3.1342, 2.9060, 2.8926, 2.8658 and 2.8591 in that order. This is an indication that growth of national public revenue shows an indifferent change as a result of tax policies at KRA. This is consistent with Bird, (2013) that the global crisis has put considerable strain on inflows of international resources which have effectively forced countries to focus on budgets, tax collections, per capita income, gross fixed capital formation and gross savings rate.

4.5.2 Tax Administration

The first objective of the study was to find out how tax administration influences National Public revenue growth in Kenya. In this regard the respondents were required to indicate the extent to which tax administration reforms in KRA affect public revenue growth in Kenya. According to the results depicted in Figure 4.3, 52.5% of the respondents reiterated that tax administration reforms in KRA affect public revenue growth in Kenya to a great extent, 26.2% of them opined that tax administration reforms in KRA affect public revenue growth in Kenya to a very great extent, 18.0% of the respondents reported to a moderate extent and 3.3% indicated that tax administration reforms in KRA affect public revenue growth in Kenya to a little extent. The results imply that tax administration reforms in KRA have a great effect on public revenue growth in Kenya. These results are in accordance with

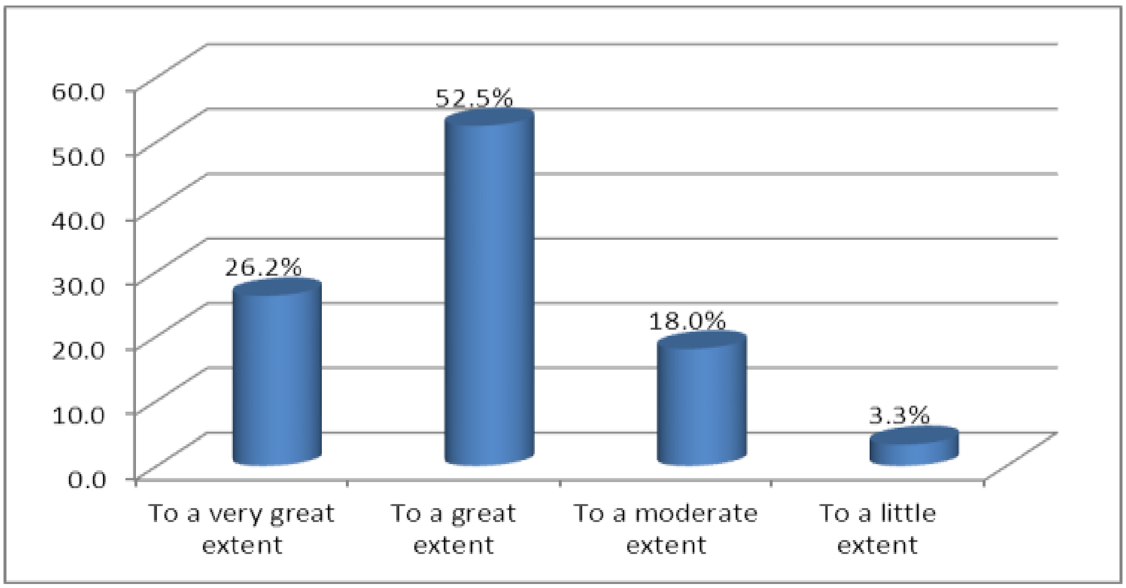

Figure 4.3: Extent to which Tax Administration Reforms affect Public Revenue

The study also sought to ascertain the extent to which various aspects of tax administration reforms in KRA affect public revenue growth in Kenya. Table 4.9 shows the results.

Table 4.9: Extent that Tax Administration Reforms affect Public Revenue Growth

Tax administration reforms	Mean	Std. Dev.
Tax bands	3.1409	.85440
Tax audit policies	3.0134	.78831
Taxpayer Regimes and recruitment policies	2.9329	.77690
Tax returns management policies	3.1342	.82738
Tax remittance/payment policies	2.9597	.77004
Tax collection enforcement policies	2.9664	.79199
Overall Mean	3.0314	0.3952

The results depicted above imply that there is moderate eeffect of tax administration reforms on public revenue growth in Kenya. Majority of the respondents recapped that tax bands affect public revenue growth in Kenya to a moderate extent as shown by mean a score of 3.1409, tax returns management policies to a moderate extent as shown by mean a score of 3.1342, tax audit policies showed moderate mean score of 3.0134 and tax collection enforcement policies affect public revenue growth in Kenya to a moderate extent as shown by mean a score of 2.9664. The respondents further reiterated that Tax remittance/payment policies and Taxpayer Regimes and recruitment policies affect public revenue growth in Kenya to a moderate extent as shown by mean a score of 2.9597 and 2.9329 in that order. From these results it is evident that tax administration reforms in KRA have significant effect on public revenue growth in Kenya. Green (2009) indicated that a comprehensive tax administration should identify situations when the country is in surplus and should aim at ensuring that there is minimal or no loss of its own productivity.

The respondents were provided with a list of various elements of tax administration adopted by KRA and asked to indicate their level of agreement on how each of them is practiced in the Organization.

Table 4.10: Various Elements of Tax Administration adopted by KRA

Statement on various elements of tax administration adopted	**Mean**	**Std. Dev.**
VAT contribute significant revenue to the total taxes collected by KRA	3.2416	.89783
Tax On Turn Over plays a role in tax administration in KRA	3.0000	.79695
Income Tax administration is well managed at KRA	3.0403	.75229
Tax rates are well administered and don't need review	3.3893	.79450
Tax on rental Income has enhanced income tax on land lords	3.1946	.84372
Corporate tax is well managed by the Authority	2.9195	.78428
Departments in KRA deliver as planned and need no improvement	3.0067	.85025
KRA review its policies often	3.0470	.84897
Overall Mean	3.2630	.2941

From the results depicted in Table 4.10, most of the respondents affirmed that tax rates are well administered and don't need review as shown by a mean score of 3.3893, VAT contribute significant revenue to the total taxes collected by KRA as shown by a mean score of 3.2416, tax on rental Income has enhanced income tax on land lords as shown by a mean score of 3.1946 and KRA review its policies often as shown by a mean score of 3.0470. In addition, they reported that income tax administration is well managed, tax on turn over plays a role in tax administration in KRA, corporate tax is well managed by the Authority and Departments in KRA deliver as planned and need no improvement as shown by mean scored of 3.0403, 3.0000, 2.9195 and 3.0067 respectively. This is in line with European Union (2012) that the need for tax revenue to make a larger contribution to the overall consolidation effort has been coupled with additional challenges stemming from the need to support the recovery and restore sustained growth over the medium and longer term through total taxes collected.

4.5.3 Tax Enforcement

In its second objective the study sought to determine how tax enforcement influences national public revenue growth in Kenya. In this regard, the study was inquisitive of the extent to which tax enforcementt reforms in KRA affect public revenue growth in Kenya. From the study, 45.7% of the responses indicated that tax enforcementt reforms in KRA affect public revenue growth to a great extent, 32.6% of them indicated to a moderate extent, 17.4% of the respondents pointed that tax enforcementt reforms in KRA affect public revenue growth to a very great extent, while 4.3% of the respondents reiterated that tax enforcementt reforms in KRA affect public revenue growth to a little extent. These results imply that tax enforcementt reforms in KRA have a considerable effect on public revenue growth.

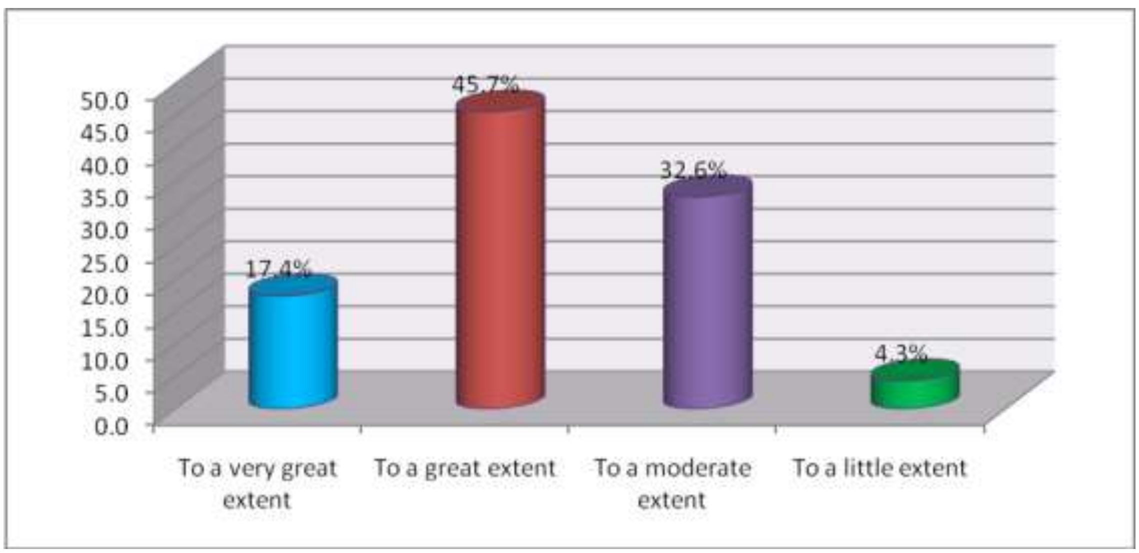

Figure 4.4: Extent to which Tax Enforcement Reforms affect Revenue Growth

The respondents were provided with several aspects of tax enforcement reforms in KRA and asked to rate the extent to which these aspects influence public revenue growth in Kenya. The results are as depicted in Table 4.11

Table 4.11: Aspects of Tax Enforcement Reforms that Influence Revenue Growth

Aspects of tax enforcement	Mean	Std. Dev.
Tax Audits	2.9396	.77310
Tax Assessment	2.8725	.78231
Compliance	2.9664	.80047
Overall Mean	3.1672	.5834

The result in Table 4.11 indicated that the given aspects of tax enforcement reforms influence public revenue growth to a moderate extent. Compliance had the greatest influence on public revenue growth as shown by a mean score of 2.9664, followed by tax audits shown by a mean score of 2.9396 and finally tax assessment shown by a mean score of 2.8725. The study further sought to establish the various indicators used for Tax enforcement by KRA.

Table 4.12 shows the results on the respondents' level of agreement on the extent to which each of them is practiced by KRA.

Table 4.12: Agreement with Indicators for Tax Enforcement

Indicators used for Tax enforcement	Mean	Std. Dev.
KRA has an Audit department	3.5342	.85153
Audit department has competent personnel	2.8658	.79405
Audit department conduct tax audits on tax payers often	3.1342	.89788
Tax audit helps tax payers on compliance	3.1745	.84415
Tax assessment helps to improve tax payers compliance	2.9396	.75541
Assessment improves on tax targets at KRA	3.0134	.83006
Compliance assist in solving tax evasion cases amongst tax payers	3.0805	.80971
Tax Compliance assists in improving on tax avoidance amongst tax payers.	2.8389	.77169
Tax audit and compliance assist in increase of more tax payers into the taxable blanket.	2.9128	.77923
Overall Mean	3.0421	.5317

The tabulated results above indicate that there was agreement on that KRA has an Audit department as shown by a mean score of 3.5342. However, the respondents showed neutrality on that Tax audit helps tax payers on compliance as shown by a mean score of 3.1745; assessment improves on tax targets at KRA as shown by a mean score of 3.0134; Audit department conduct tax audits on tax payers often as shown by a mean score of 3.1342; Compliance assist in solving tax evasion cases amongst tax payers as shown by a mean score of 3.0805; Tax assessment helps to improve tax payers compliance as shown by a mean score of 2.9396; Tax audit and compliance assist in increase of more tax payers into the taxable blanket as shown by a mean score of 2.9128; Audit department has competent personnel as shown by a mean score of 2.8658 and tax Compliance assists in improving on tax avoidance amongst tax payers as shown by a mean score of 2.8389. These results imply that KRA innovated Tax enforcement approaches and techniques to address tax compliance, assist in solving tax evasion cases, assists in improving on tax avoidance and increase of more tax payers into the taxable blanket. These study findings are supported by Donnelly and Heneghan (2010) who found that higher audit probabilities and severe penalties encourage tax compliance. Sagas, Nelimalyani and Kimaiyo (2015) established that tax enforcement 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.

4.5.4 Human Resource Revitalization

The third objective of the study was to ascertain how human resource revitalization influences National Public revenue growth in Kenya. The respondents were required to share their opinions on the extent to which human resource revitalization in KRA affect public revenue growth in Kenya. According to Figure 4.5, 40.6% of the respondents affirmed that human resource revitalization in KRA affect public revenue growth in Kenya to a great extent. In addition, 29.7% of them recapped that human resource revitalization in KRA affect public revenue growth in Kenya to a moderate extent, 23.4% of the respondents indicated to a very great extent, while 6.3% of the responses showed that human resource revitalization in KRA affect public revenue growth in

Kenya to a little extent. These results imply that human resource revitalization in KRA plays an integral role on public revenue growth in Kenya. In the same line of view, Crane and Matten (2004) reported that human resource revitalization involves application of general moral principles to the management of employees' wages and conditions to enhance their commitment to service delivery.

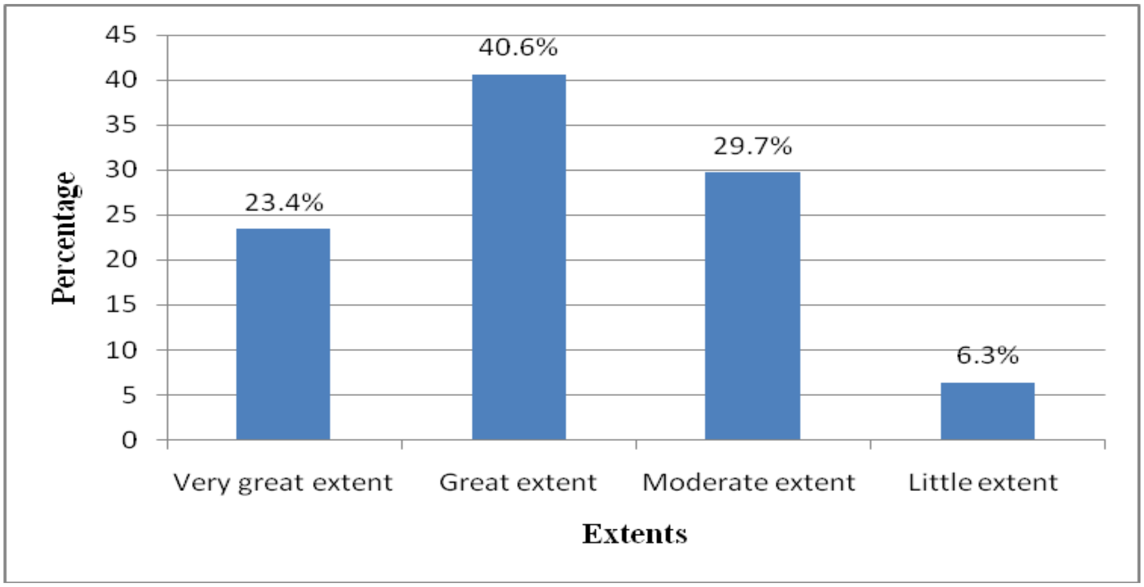

Figure 4.5: Extent to which Human Resource Revitalization affects Revenue Growth

The respondents were also required to indicate the extent to which various aspects of human resource revitalization in KRA influence public revenue growth in Kenya. The results are as tabulated.

Table 4.13: Aspects of HR Revitalization influencing Public Revenue Growth

Aspects of human resource revitalization	Mean	Std. Dev
Staff recruitment	3.1074	.90151
Personnel training	3.2953	.86605
HR development	2.8926	.78964
Compensation and rewards	2.9530	.79130
Overall Mean	3.2536	.70510

According to Table 4.13, most of the respondents reiterated that personnel training, staff recruitment, compensation and rewards and HR development influence public revenue growth in Kenya to moderate extents as shown by mean scores of 3.2953, 3.1074, 2.9530 and 2.8926 respectively. This is in accordance with KRA (2010) that KRA came up with a training institute-Kenya Revenue Authority Training Institute (KRATI) which is a specialized training institution focusing on customs, tax administration and management studies. This was aimed at to solving most unethical and corruption issues whose focus is staff recruitment, personnel training, HR development and compensation and rewards.

The study provided the respondents with a list of HR revitalization dimensions undertaken by KRA and required them to indicate the extent to which each of them affects the Authority's performance. Table 4.14 shows the results of the analysis.

Table 4.14: HR Revitalization Dimensions that affect KRA's Performance

Statement	Mean	Std. Dev
KRA has a recruitment wing within the HR department	3.0134	.80527
The Organisation conducts need analysis to ascertain the gaps	3.1812	.85467
The Organization advertises before recruiting and placement	2.9060	.79136
KRA conducts trainings amongst its staff	2.9396	.85605
Trainings are done often and in accordance with emerging issues	3.2550	.87112
Trainings are both external and internal	3.0470	.83290
KRA has HR development programmes for its staff	3.0067	.80954
The Authority has staff appraisal programme	2.8725	.77362
Appraisals are done often	2.9732	.76181
Promotions are done on merit	2.9597	.82100
Compensations are done on performance	2.9128	.86940
Overall Mean	3.3437	.6432

Accordingly, majority of the respondents neither agreed nor disagreed with that training are done often and in accordance with emerging issues as shown by a mean score of 3.2550, the Organization conducts need analysis to ascertain the gaps as shown by a mean score of 3.1812, training are both external and internal 3.0470, KRA has a recruitment wing within the HR department as shown by a mean score of 3.0134 and that KRA has HR development programs for its staff 3.0067. They further showed neutrality on that appraisals are done often Promotions are done on merit, KRA conducts trainings amongst its staff, Compensations are done on performance, The Organization advertises before recruiting and placement and the Authority has staff appraisal programme as shown by a mean scores of 2.9732, 2.9597, 2.9396, 2.9128, 2.9060, 2.8725 in that order. his finding corroborates those of Wamathu (2013) that knowledge imparts tax compliance and the reforms had a bigger impact on direct taxes.

4.5.5 Business Automation System

Business automation system has a moderating influence on National Public revenue growth in Kenya. In this regard, the study sought to establish the extent to which business automation system in KRA affect public revenue growth in Kenya. From the results depicted in Figure 4.6, 39.1% of the respondents reiterated that business automation system in KRA affect public revenue growth in Kenya to a great extent, 30.4% of them indicated to a moderate extent, 17.4% indicated to a very great extent and 13.0% of the respondents reported that business automation system in KRA affect public revenue growth in Kenya to a little extent. According to these results, business automation system in KRA has an enormous effect on public revenue growth in Kenya.

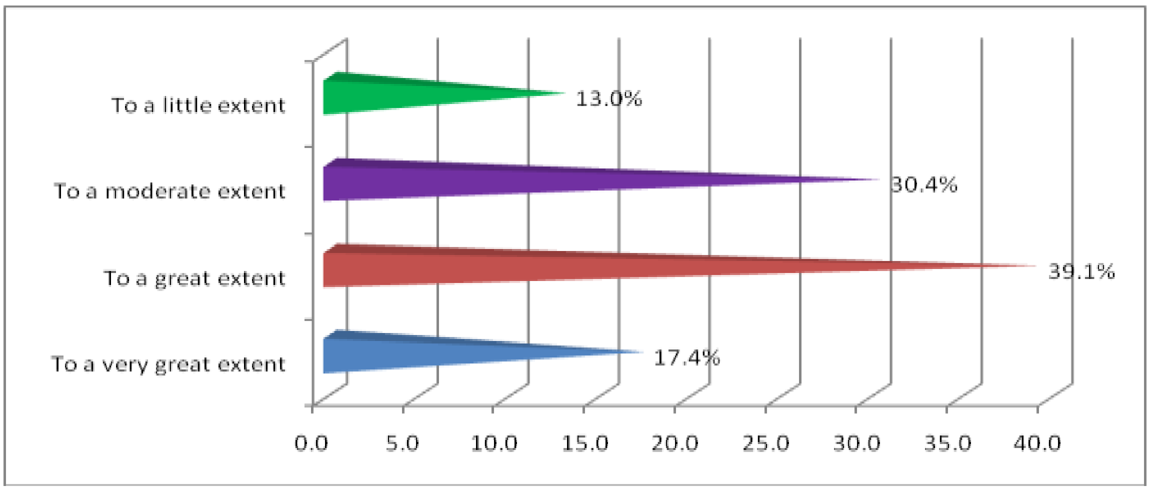

Figure 4.6: Extent to which Business Automation System affect Revenue Growth

The respondents were further requested to indicate their level of agreement with various aspects the performance in KRA as a result of adopting business automation system. Table 4.15 shows the results obtained.

Table 4.15: Effet of Business Automation System on Performance of KRA

Statement	Mean	Std. Dev
KRA has a performing ICT system	2.9530	.79979
iTax platform has enhanced KRA service delivery	2.8993	.76002
itax platform has enhanced improved efficiency at KRA	3.0201	.80093
itax has contributed to tax revenue growth at KRA	3.1611	.78900
Overall Mean	3.0110	.6002

According to Table 4.5.5.1, majority of the respondents indicated neutrality on that itax has contributed to tax revenue growth at KRA as shown by a mean score of 3.1611, itax platform has enhanced improved efficiency at KRA as shown by a mean score of 3.0201, KRA has a performing ICT system as shown by a mean score of 2.9530 and iTax platform has enhanced KRA service delivery as shown by a mean score of 2.8993. The same views were echoed by Kavanagh *et al.*, (2010) that business automation system provides efficient and effective services to taxpayers and public and reduce interaction with staff, improve tax collection, facilitate seamless sharing of information across KRA and relevant third parties for data-matching purposes in order to detect non-compliance and to facilitate combined enforcement actions.

4.6 Diagnostic Tests

Regression can only be accurately estimated if the basic assumptions of multiple linear regressions are observed Greene (2003). Therefore, various diagnostic tests which included sampling adequacy tests, normality tests and autocorrelation tests were conducted to ensure accuracy of the results.

4.6.1 Normality Test

The classical linear regression assumes normally distributed error term. Results in Table 4.16, for normality of data, skewness statistics should be within acceptable range of ±3 and Jarque-Bera value below 5.9. The data variables are normal since the skewness statistics are within the range and Jarque- Bera values below 5.9. The data is thus suitable for further analysis.

Table 4.16: Normality Test Statistics

	Tax Administration	**Tax enforcement**	**Human resource revitalization**	**Business automation system**
Skewness	-0.179995	1.667759	-1.390814	1.544514
Kurtosis	2.064406	5.093524	3.961077	4.581320
Jarque-Bera	1.507395	3.26278	2.99169	1.06399
Probability	0.470623	0.000009	0.001510	0.000120
Observations	157	157	157	157

4.6.2 Sampling Adequacy Test

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was conducted to determine adequacy of the sample size. According to Magd (2008) KMO is an index used to examine and justify the appropriateness of application of Factor Analysis; values between 0.5-1.0 indicate that a factor is significant. Moutinho and Hutcheson (2010) suggested that values between 0.7 and 0.8 are good for factor analysis and it was used in the study

According to Field (2000) for a sample to be considered adequate it must be above the minimum threshold of 0.5. Therefore, all variables were subjected to KMO and Bartlett's Test to find out whether they met the minimum threshold of 0.5 required for a sample adequacy and results were presented on Table 4.17.

Table 4.17: KMO and Bartlett's Test for Financial Performance Factors

Indicator	**Coefficient**
Kaiser-Meyer-Olkin Measure	0.789
Bartlett's Chi- Square	730.470
Bartlett's df	145
Bartlett's Sig.	0.000

The KMO measure of sample adequacy was 0.789 which indicated that the set of variables were suitable for factorization. Bartlett's test of Sphericity was significant (Chi-square 730.470, p<0.000) which implied that the variables were not correlated hence suitable for factorization.

4.6.3 Test for Multi-collinearity

Multi-collinearity test was carried out to establish whether the explanatory variables were correlated. Variance Inflation Factor (VIF) test was also used to test for multi-collinearity. Multi-collinearity is present if the VIF value exceeds 10. The results for VIF for the models are shown in Table 4.18.

Table 4.18: Inflation Factor Results

Dimension	VIF (model 1)	VIF (model 2)
Tax administration	1.535	1.738
Tax enforcement	1.015	2.735
Human resource revitalization	1.542	3.879

Results presented in Table 4.18, the VIF values for all the variables in each model were less than 10. This indicated absence of multi-collinearity among the explanatory variables.

4.6.4 Test for Autocorrelation

Autocorrelation test was performed to establish whether the error terms were serially interdependent using Durbin Watson statistics. Autocorrelation is present if the DW statistics is close to 0 and 4. A value of 0 shows evidence of perfect positive autocorrelation while 4 shows evidence of perfect negative autocorrelation. A Durbin Watson value between 2 and 2.5 indicates absence of autocorrelation. Absence of autocorrelation implies that the data is reliable and suitable for estimation. The results for autocorrelation test are presented in Table 4.19 below.

Table 4.19: Autocorrelation Results

Model	Durbin Watson	Status
Model 1	2.38	No autocorrelation
Model 2	2.45	No autocorrelation

Table 4.19 indicates that model 1 had a Durbin Watson value of 2.38. Since this value lies between 2 and 2.5, it indicates absence of autocorrelation in the model. The Durbin Watson value in model 2 was 2.45 which also imply no autocorrelation.

4.6.5 Test for Heteroscedasticity

Heteroscedasticity occurs when the variance of the error term is not constant in each period and for all values of the independent variable. This assumption violates the assumption of classical linear regression model which assumes that the variance of the error term remains constant. Heteroscedasticity may also occur when some important variables are omitted from the model. In this study, heteroscedasticity was tested by performing Breusch-pagan test to establish whether the residuals had a constant variance. Heteroscedasticity is present if the P-value is less than 0.05. The results are presented in Table 4.20.

Table 4.20: **Breusch-pagan test for Heteroscedasticity**

	Chi-square	**Prob > Chi-square**
Model	8.23	0.3465
Model 2	4.23	0.765

The results of Table 4.20 indicate that in all the models, p-value is greater than 0.05 thus leading to the acceptance of the null hypothesis of a constant variance implying absence of heteroscedasticity.

4.7 Correlation Analysis

Karl Pearson Moment correlation helps in testing the relationship between the explanatory variable so that the strength of the variables can be determined, to help determine which variable best explains the relationship between tax policy reforms and public revenue growth. The results are as shown in Table 4.21.

Table 4.21: Correlations between Tax Policy Reforms and Public Revenue Growth

Variables	**public revenue growth**	**tax administration**	**tax enforcement**	**human resource revitalization**	**business automation system**
Public revenue growth	1	.321**	.526**	.122**	.166**
Tax administration	.321**	1	.426	.166	.174
Tax enforcement	.526**	.426	1	.042	.103
Human resource revitalization	.122**	.166	.042	1	.097
Business automation system	.166**	.235	.103	.097	1

**. Correlation is significant at the 0.01 level (2-tailed).

These results show that there is significant relationship among variables (public revenue growth, tax administration, tax enforcement, human resource revitalization and business automation system). The results indicate that the correlation coefficients for all variables were less than 0.05 implying that the study data did not exhibit severe multi-collinearity. From the findings, there was a positive correlation between public revenue growth and tax administration with a correlation figure of 0.321 ($p<0.05$); it was clear that there was a positive correlation between public revenue growth and tax enforcement with a correlation figure of 0.526 ($p<0.05$); there was a positive correlation between public revenue growth and human resource revitalization with a correlation value of 0.122 ($p<0.05$) while there was a positive correlation between public revenue growth and business automation system with a correlation value of 0.166 ($p<0.05$). These results show that there were positive correlations between public revenue growth and tax administration, tax enforcement, human resource revitalization as well as business automation system. This implies that for every unit change in the variables, there is a positive change on public revenue growth. This is in accordance with Djankov *et al.*, (2010) that tax policy reforms components (tax administration, tax enforcement, human resource revitalization and business automation system) play a crucial role motivating service delivery, efficiency, tax revenue growth and sustaining momentum

4.8 Regression Analysis

Regression analysis was done in order to measure the ability of the independent variable(s) to predict an outcome in the dependent variable where there is a linear relationship between them. Cooper and Schindler (2010) argued that regression analysis can also be used determine the strength of the relationship between the independent and dependent variables and to determine the combined effect of all the independent variables on the dependent variable. The coefficient of determination (R^2) was used to measure the change in dependent variable explained by the change in independent variable(s). F –test was carried out to evaluate the significance of the overall model and to define the relationship between the dependent variable and independent variables; t- test was used to test the significance of the individual independent variables to the dependent variable.

4.8.1 Regression Analysis for Tax Administration and Public Revenue Growth

The first hypothesis of the study was that there is no significant effect of tax administration on public revenue growth in Kenya. This hypothesis was tested through regression analysis between tax administration and public revenue growth in Kenya. The results of simple rregression analysis for tax administration and public revenue growth in Kenya were done and the model summary was presented in Table 4.22.

Table 4.22: Regression Analysis for Tax Administration and Public Revenue Growth in Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.601[a]	.361	.351	.12348

a. Predictors: (Constant), Tax Administration

b. Dependent Variable: Public Revenue Growth in Kenya

The results in Table 4.22 indicated that there was an effect of Tax Administration on the Public Revenue Growth in Kenya in which R^2 was 0.361 implying that 36.1% of Public Revenue Growth was explained by Tax Administration. This shows that an increase in Tax Administration by one unit causes an increase of Public Revenue Growth by 0.361. The adjusted R square of 0.351 means the Tax Administration without the constant explains 35.1% variation in Public Revenue Growth in Kenya. The remaining 63.9% variation in Public Revenue Growth in Kenya is explained by other variables which are not in this model.

Table 4.23: ANOVA Test for Tax Administration and Public Revenue Growth in Kenya

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	416.767	1	416.767	26042.167	.000[b]
	Residual	5.577	148	.0377		
	Total	422.344	149			

a. Dependent Variable: Public Revenue Growth in Kenya

b. Predictors: (Constant), Tax Administration

The results for Analysis of Variance for tax administration with public revenue growth is shown in Table 4.23 in which computed F-Statistics value was 26042.167 which is greater than the critical value of 3.05 and p value was 0.000 which was less than 0.05 meaning that there is a significant effect tax administration on public revenue growth. Thus the null hypothesis was rejected and concluded that there was a significant effect of tax administration on public revenue growth in Kenya.

Table 4.24: Beta Coefficients of Tax administration and Public Revenue Growth

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	31.7	.036		880.556	.000
	Tax administration	1.321	.017	.601	77.706	.000

a. Dependent Variable: Public revenue growth

Results in Table 4.24 shows beta coefficient summary in which the t-values are 880.556 and 77.706 with p-values being 0.000 which are less than 0.05 hence the model was statistically significant. The model was defined as $Y = 31.7+1.321X_1$, indicating that every unit increase in tax administration leads to 1.321 increase of public revenue growth in Kenya. This implies that tax administration positively affects public revenue growth in Kenya.

4.8.2 Regression Analysis for Tax Enforcement and Public Revenue Growth

The second hypothesis of the study was that there is no significant effect of tax enforcement on public revenue growth in Kenya. This hypothesis was tested through regression analysis between tax enforcement and public revenue growth in Kenya. The results of simple regression analysis for tax enforcement and public revenue growth in Kenya was done and the model summary was presented in Table 4.50.

Table 4.25: Regression Analysis for Tax enforcement and Public Revenue Growth in Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.657[a]	.432	.354	.51328

a. Predictors: (Constant), Tax Enforcement

b. Dependent Variable: Public Revenue Growth in Kenya

The results in Table 4.25 indicated that there was an effect of Tax enforcement on the Public Revenue Growth in Kenya in which R^2 was 0.431 implying that 43.1% of Public Revenue Growth was explained by Tax enforcement. This shows that an increase in Tax enforcement by one unit causes an increase of Public Revenue Growth by 0.431. The adjusted R square of 0.354 means the Tax enforcement without the constant explains 35.4% variation in Public Revenue Growth in Kenya. The remaining 56.9% variation in Public Revenue Growth in Kenya is explained by other variables which are not in this model.

Table 4.26: ANOVA Test for Tax enforcement and Public Revenue Growth in Kenya

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regrssion	516.006	1	516.006	1562.161	.001[b]
	Residual	4.507	148	.0305		
	Total	520.513	149			

a. Dependent Variable: Public Revenue Growth in Kenya
b. Predictors: (Constant), Tax enforcement

The results for Analysis of Variance for tax enforcement with public revenue growth is shown in Table 4.26 in which computed F-Statistics value was 1562.161 which is greater than the critical value of 3.05 and p value was 0.001 which was less than 0.05 meaning that there is a significant effect tax enforcement on public revenue growth. Thus the null hypothesis was rejected and concluded that there was a significant effect of tax enforcement on public revenue growth in Kenya.

Table 4.27: Beta Coefficients of Tax enforcement and Public Revenue Growth

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	51.3	.031		1654.84	.001
	Tax enforcement	1.378	.017	.657	81.059	.003

a. Dependent Variable: Public revenue growth

Results in Table 4.27 shows beta coefficient summary in which the t-values are 1654.84 and 81.059 with p-values being 0.001 and 0.003 which are less than 0.05 hence the model was statistically significant. The model was defined as $Y = 51.3+1.378X_2$, indicating that every unit increase in tax enforcement leads to 1.378 increase of public revenue growth in Kenya. This implies that tax enforcement positively affects public revenue growth in Kenya.

4.8.3 Regression Analysis for Human Resource Revitalization and Public Revenue Growth

The third hypothesis of the study was that there is no significant effect of human resource revitalization on public revenue growth in Kenya. This hypothesis was tested through regression analysis between human resource revitalization and public revenue growth in Kenya. The results of simple regression analysis for human resource revitalization and public revenue growth in Kenya were done and the model summary was presented in Table 4.28.

Table 4.28: Regression Analysis for Human resource revitalization and Public Revenue Growth in Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.507[a]	.257	.204	.37808

a. Predictors: (Constant), Human Resource Revitalization

b. Dependent Variable: Public Revenue Growth in Kenya

The results in Table 4.28 indicated that there was an effect of Human resource revitalization on the Public Revenue Growth in Kenya in which R^2 was 0.257 implying that 25.7% of Public Revenue Growth was explained by Human resource revitalization. This shows that an increase in Human resource revitalization by one unit causes an increase of Public Revenue Growth by 0.257. The adjusted R square of 0.204 means the Human resource revitalization without the constant explains 20.4% variation in Public Revenue Growth in Kenya. The remaining 74.3% variation in Public Revenue Growth in Kenya is explained by other variables which are not in this model.

Table 4.29: ANOVA Test for Human resource revitalization and Public Revenue Growth in Kenya

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regrssion	616.236	1	616.236	2061.063	.000[b]
	Residual	5.534	148	.0374		
	Total	621.77	149			

a. Dependent Variable: Public Revenue Growth in Kenya

b. Predictors: (Constant), Human resource revitalization

The results for Analysis of Variance for human resource revitalization with public revenue growth is shown in Table 4.29 in which computed F-Statistics value was 2061.063 which is greater than the critical value of 3.05 and p value was 0.000 which was less than 0.05 meaning that there is a significant effect human resource revitalization on public revenue growth. Thus the null hypothesis was rejected and concluded that there was a significant effect of human resource revitalization on public revenue growth in Kenya.

Table 4.30: Beta Coefficients of Human Resource Revitalization and Public Revenue Growth

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	31.2	.031		1006.45	.000
	Human resource revitalization	1.413	.019	.507	74.368	.001

a. Dependent Variable: Public revenue growth

Results in Table 4.30 shows beta coefficient summary in which the t-values are 1006.45 and 74.368 with p-values being 0.000 and 0.001 which are less than 0.05 hence the model was statistically significant. The model was defined as $Y = 31.2+1.413X_3$, indicating that every unit increase in human resource revitalization leads to 1.413 increase of public revenue growth in Kenya. This implies that human resource revitalization positively affects public revenue growth in Kenya.

4.8.4 Multiple Regression Analysis

Multiple regression analysis of all independent variables and dependent variable was done and the results were presented in tables. Multiple linear regression model,

$Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$

Where,

Y= Public Revenue Growth

X_1 = Tax Administration

X_2 = Tax Enforcement

X_3 = Human Resource Revitalization, was used to establish the combined effect of all independent variables and dependent variable. Table 4.62 presented the results for regression analysis of all the independent variables on dependent variable.

Table 4.31: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	. 797	.635	.573	.269

From the model summary, R^2= 0.635 and adjusted R square 0.573 reveal that 63.5% change in public revenue growth can be explained by the changes of all the predictor variables. It shows that the independent variables had a strong correlation with the dependent variable. On the other hand, 36.5% was explained by other factors that were not part of this study. The results imply that tax policy reforms adopted contribute a major part of the public revenue growth. This is also in agreement with Shekidele (2009) successful tax policy reform process helps increase the public revenue growth.

The Analysis of variance (ANOVA) was used to determine whether there was a regression relationship between tax policy reform and public revenue growth. The F-ratio in the ANOVA table tested whether the overall regression model was good and fit for the data. The results obtained are presented in Table 4.32

Table 4.32: ANOVA Test Results

Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Regression	8.44	4	2.11	2.912	0.000
Residual	103.68	144	0.72		
Total	112.12	148			

Constant: Public Revenue Growth

Predictors: Tax Administration, Tax enforcement, HR Revitalization

The results indicate that F=2.912, and is significant since p<0.001which is less than p value, p =0.05. The critical values for F-test (4, 66, at 0.05 alpha is 2.51) which is less than the computed F-value (2.912). This therefore shows that the model is fit for finding out the relationship between the dependent and independent variables.

In model 1, Tax administration, Tax enforcement and Human resource revitalization were used as explanatory variables while public revenue growth was included as the explained variable. The results are presented in table 4.33.

Table 4.33: Regression Coefficients

	Unstandardized Coefficients Beta	Std. Error	Standardized Coefficients Beta	t-value	p-value
(Constant)	.580	.189		3.079	.004
Tax administration	.489	.093	.227	2.034	.000
Tax enforcement	.417	.102	.315	2.133	.000
Human resource revitalization	.384	.133	.425	2.881	.000

The beta coefficient summary in Table 4.33 shows that the p values for all the predictor variables are less than 0.05 indicating that the model was statistically significant. The model was defined as: $Y = 0.580 + 0.489X_1 + 0.417X_2 + 0.384X_3$ where; X_1 was Tax Administration, X_2 was Tax Enforcement and X_3 was Human Resource Revitalization which indicates that all the Tax Policy Reforms were affecting Public Revenue Growth in Kenya. The results show that there is positive effect of Tax Administration, credit restriction, Tax Enforcement and Human Resource Revitalization on public Revenue Growth in Kenya. The study found out that the Tax Policy Reforms are Human Resource Revitalization followed by Tax Administration.

The results are inconsistent with study by Wawire (2000) estimated the tax buoyancy and income-elasticity of Kenya's tax system. Tax revenues from various sources were regressed on their tax bases. The study concluded that the tax system had failed to raise necessary revenues. These findings are similar to Karingi and Wanjala (2005) evaluated the effect of tax reforms on tax revenue and its composition in the pre and post adjustment period, as measured by the tax/GDP ratios and the share of specific taxes in total tax revenue. In their study, they observed that tax yield rose successfully even before the major tax reform programme to peak on average at 19.7 per cent of GDP by the early 1980s. But this level of tax yield compared to the expenditure-to-GDP ratio was nonetheless insufficient. Consequently, they argued that since one of the main objectives of the TMP was to raise tax yield on a zero-deficit strategy to match expenditures which were on average 28 per cent of GDP

4.9 The Moderating Effect of Business Automation System

The fourth hypothesis of the study was that there is no significant moderating effect of Business Automation System on the effect of Tax Policy Reforms on the Public Revenue Growth. Moderated Regression analysis was done in order to test the moderating effect of Business Automation System (moderating variable) on the effect of Tax Policy Reforms on the Public Revenue Growth. Regression analysis was conducted for all independent variables with the moderating variable and dependent variable. The moderation effect of Business Automation System on the effect of Tax Policy Reforms on the Public Revenue Growth was tested using the changes in R-square after the moderating variable was introduced. The condition for rejecting the null hypothesis was a computed p value which was less than 0.05. The magnitude of moderation effect was shown by the change in R^2 in the model summary.

In Table 4.34 Model 1 represented multiple linear regression analysis of Tax Policy Reforms and Public Revenue Growth without moderating variable while model 2 represented hierarchical Moderated Multiple Regression analysis of Tax Policy Reforms and Public Revenue Growth with the moderating variable.

Table 4.34: Model Summary for all Variables with Moderating Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.797[a]	0.635	0.573	0.26900
2	0.865[b]	0.748	0.623	0.12356

a. Predictors: (Constant), X_1, X_2, X_3

b. Predictors: (Constant), X_1*Z, X_2*Z, X_3*Z

The results in Table 4.34 shows that coefficient of correlation (R) was 0.797 without the moderating variable, indicating that there is an effect of Tax Policy Reforms (X_1 -

Tax Administration, X_2- Tax Enforcement, X_3 - Human Resource Revitalization) on Public Revenue Growth without Business Automation System, it increased to 0.865 when Business Automation System was introduced. The results further show that when moderating variable in the overall model was absent R squared was 0.635 (63.5%) and it increased to 0.748 (74.8 %) when Business Automation System was introduced which implies that Business Automation System increases the effects of Tax Policy Reforms on Public Revenue Growth.

Table 4. 35: ANOVA for Moderated Multivariate Regression

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	8.44	4	2.11	2.912	0.000
1	Residual	103.68	144	0.72		
	Total	112.12	148			
	Regression	62.025	4	15.506	47.025	0.000
2	Residual	56.589	144	.393		
	Total	118.614	148			

a. Predictors: (Constant), X_1, X_2, X_3

b. Predictors: (Constant), X_1*Z, X_2*Z, X_3*Z

The ANOVA results shown in Table 4.35 show that model 2 which is the overall regression model of the effect of Tax Policy Reforms on Public Revenue Growth with the moderating variable was significant as F statistics was 47.025 and the p-value of 0.000 which is less 0.05. This implied that moderated multivariate model used was statistically significant.

Table 4. 36: Regression Coefficients for Moderated Multivariate Regression

	β	Std. Error	Beta	t	Sig.
(Constant)	0.750	.470		1.939	.000
X_1*Z	1.269	.009	0.6743	4.034	.000
X_2*Z	3.387	.008	4.7246	8.173	.000
X_3*Z	0.904	.352	2.8510	6.841	.000

a. Dependent Variable: Public Revenue Growth

According to the results in Table 4.36**,** there was a significant difference in the beta coefficients before and after the introduction of the moderating variable. This is supported by the fact that the p values were all less than 0.05. The overall regression model equation with Business Automation System as moderating variable was defined as; $Y = 0.750 + 1.269X_1*Z + 3.387X_2*Z + 0.904X_3*Z$ where X_1 was Tax Administration, X_2 was Tax Enforcement and X_3 was Human Resource Revitalization and Z was Business Automation System. The model was compared with the model without the moderating variable Y = $Y = 0.580 + 0.489X_1 + 0.417X_2 + 0.384X_3$ where a significant change in beta coefficients was noted. This implies that with the introduction of Business Automation System there was an improvement in the effect of Tax Policy Reforms on the Public Revenue Growth. According to the Moderated Multiple Regression analysis results the study found out that Business Automation System had a moderating effect on the effect of Tax Policy Reforms on the Public Revenue Growth.

CHAPTER FIVE

SUMMARY , CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study sought to establish the effect of tax policy reforms on public revenue growth in Kenya. The tax policy reforms in the study were tax administration, tax enforcement and human resource revitalization which were independent variables of the study. The study also had a moderating variable which was business automation systems. This chapter provides a summary of the findings of the study based on the objectives of the study, presents the conclusions from the findings and gives recommendations to the beneficiaries of the study and areas of further research in order to fill the gaps identified in the study.

5.2 Summary of the Findings

This section provides a summary of the findings of the study which were based on the specific objectives of the study. The specific objectives of the study were based on the study variables, that is, tax administration, tax enforcement and human resource revitalization and business automation systems which was the moderating variable.

5.2.1 Tax Administration and Public Revenue Growth in Kenya

The study found that tax administration reforms in have a great effect on public revenue growth in Kenya. The study established neutrality on that tax bands, tax returns management policies, tax audit policies, tax remittance/payment policies and taxpayer regimes, recruitment policies and tax collection enforcement policies affect public revenue growth in Kenya to moderate extents. Tax rates are well administered and don't need review, VAT contribute significant revenue to the total taxes collected, tax on rental Income has enhanced income tax on land lords, the tax authority review its policies often, income tax administration is well managed, tax on turn over plays a role in tax administration, corporate tax is well managed by the Authority and Departments in tax authority deliver as planned and need no improvement. There was a positive correlation between public revenue growth and tax administration. Public revenue growth can be explained by the changes in tax administration reform.

5.2.2 Tax Enforcementt and Public Revenue Growth in Kenya

The study established that tax enforcementt reforms in Kenya affect National public revenue growth to a great extent. Compliance, tax audits and tax assessment influence public revenue growth to a moderate extent. There was agreement on that the tax authority has an Audit department, however, neutrality on that tax audit helps tax payers on compliance, assessment improves on tax targets, audit department conduct tax audits on tax payers often, compliance assist in solving tax evasion cases amongst tax payers, tax assessment helps to improve tax payers compliance, tax audit and compliance assist in increase of more tax payers into the taxable blanket, audit department has competent personnel and tax compliance assists in improving on tax avoidance amongst tax payers. There was a positive correlation between public revenue growth and tax enforcement. Public revenue growth can be explained by the changes in tax enforcement, reform in Kenya.

5.2.3 Human Resource Revitalization and Public Revenue Growth in Kenya

The study found that human resource revitalization in Kenya affect National public revenue growth in Kenya to a great extent. Staff recruitment, personnel training, Human Reource development and compensation and rewards influence National public revenue growth in Kenya to moderate extents. There was neutrality on that training are done often and in accordance with emerging issues, the Organization conducts need analysis to ascertain the gaps, training of both external and internal staff, the tax authority has a recruitment wing within the Human Resource department, appraisals are done often Promotions are done on merit, the authority conducts trainings amongst its staff, Compensations are done on performance, The Organization advertises before recruiting and placement, the Authority has staff appraisal programme and that the authority has Human Resource development programs for its staff. There was a positive correlation between public revenue growth and human resource revitalization, thus Public revenue growth can be explained by the changes in human resource revitalization reform in Kenya.

5.2.4 Moderating Effect of Business Automation System

The study established that business automation system has a moderating effect on Public revenue growth in Kenya. Business automation system in Kenya has an enormous effect on public revenue growth. Implementation of itax has contributed to tax revenue growth at Kenya, itax platform has enhanced improved efficiency in Kenya, the tax authority has a performing Information Communication Technology system and iTax platform has enhanced service delivery. Business automation system provides efficient and effective services to taxpayers and public and reduce interaction with staff, improve tax collection, facilitate seamless sharing of information across the authority and relevant third parties for data-matching purposes in order to detect non-compliance and to facilitate combined enforcement actions.

5.3 Conclusion

The study concludes that tax reforms have significant influence on public revenue growth. The study concludes that growth of national public revenue shows an indifferent change as a result of tax policies.The need for tax revenue to make a larger contribution to the overall consolidation effort has been coupled with additional challenges stemming from the need to support the recovery and restore sustained growth over the medium and longer term through total taxes collected. Tax bands, tax returns management policies, tax audit policies, tax remittance/payment policies and taxpayer regimes, recruitment policies and tax collection enforcement policies affect public revenue growth in Kenya. Tax authority reforms facilitate Government budgets, tax reforms lead to improved tax collections, improved per capita income, enhances gross fixed capital formation, improved gross savings rate and facilitates achievement of public service targets.

The study concludes that tax enforcement reforms had a positive impact on the overall tax structure and on the individual tax handles thus tax administration reforms in tax authority have a considerable effect on public revenue growth. The tax authority innovated Tax enforcement approaches and techniques to address tax compliance, assist in solving tax evasion cases, assists in improving on tax avoidance and increase of more tax payers into the taxable blanket. The study concludes that human resource revitalization plays an integral role on public revenue growth in Kenya. It involves application of general human resource principles to the management of employees' wages and conditions to enhance their commitment to service delivery.

Knowledge imparts tax compliance and the reforms had a bigger impact on taxes and hence public revenue growth. The study concludes that business automation system in Kenya has an enormous effect on public revenue growth in Kenya. Business automation system provides efficient and effective services to taxpayers and public and reduce interaction with staff, improve tax collection, facilitate seamless sharing of information across Kenya and relevant third parties for data-matching purposes in order to detect non-compliance and to facilitate combined enforcement actions.

5.4 Recommendations

To ensure that tax policy reforms enhance national public revenue growth in Kenya, the study makes the following recommendations.

5.4.1 Tax Administration Reforms

Tax administration reforms especially tax bands, tax returns management policies, tax audit policies, tax remittance/payment policies and taxpayer regimes, recruitment policies and tax collection enforcement policies affect public revenue growth in Kenya. The emphasis should be increased on improving tax administration to broaden the tax base so that existing tax rates can be reduced without affecting government revenues. In addition, government revenue collection needs to be consolidated through the tax authority. Tax administration contributes more to the increase of public revenue growth followed by tax enforcement, then human resource revitalization while business automation system contributes the least to the public revenue growth.

5.4.2 Tax Enforcement Reforms

There is need for a well-functioning tax enforcement system to increase tax compliance, tax audits and tax assessment. The tax system should be able to tap the gains from economic growth. This would be enhanced by ensuring efficient computerization of systems to increase compliance as it would improve the interaction of the tax authority with taxpayers and facilitate follow-up using the Personal Identification Number. Computerization would also make it easier to consolidate payment of all taxes and levies.

5.4.3 Human Resource Revitalization

Since human resource revitalization affect National public revenue growth, Improving the administration of custom tax could be a viable solution for increasing the productivity of tax in Kenya. Efficient staff recruitment, personnel training, HR development and compensation and rewards should aim at improvement of compliance, improvement of collection of revenue, and prevention of evasion of tax.

5.4.4 Business Automation System

The study concluded that there is a moderating effect of business automation system on the effect of tax policy reforms on public revenue growth in Kenya. The efficiency of business automation system in Kenya should be improved and upgraded to suit both government and citizens. A good tax system should be responsive to economic growth. This means that as the economy grows, tax revenue should also grow. This is because tax revenue is a function of national income/GDP. Even though tax reforms have positive contribution for the country, economy development, it has certain pitfalls that needs due consideration. As a result, in order to overcome the shortcoming. The assumed relationship between paying tax and enjoying the benefits of government expenditure should be strengthened by increasing awareness of this relationship which can be clearly beneficial and constructive for not just the populace but also the economy as a whole.

5.5 Areas for Further Research

The study examined the effect of tax policy reforms on National Public revenue growth in Kenya. Further studies should be conducted to investigate the influence of other factors which are not captured by this study. Such factors include the demand management policies by the government, different shocks to the economy and the effect of tax evasion and avoidance. The results of the regression analysis showed that all the independent variables combined explained 63.5% of Public Revenue Growth in Kenya, thus there remains 36.5% which is explained by other variables. The study recommends that future research should be directed towards validating the results of this study by conducting a similar research in another developing country.

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APPENDICES

Appendix I: Questionnaire for Kenya Revenue Authority Staff

This questionnaire is aimed at collecting data on Effects of Tax policy reforms on Public Revenue growth in Kenya for a Ph.D. Thesis. The data will be used for academic purpose only, and will be treated with strict confidence. You are requested to participate in the study by providing answers to the items in the sections as indicated.

INSTRUCTIONS

Kindly fill your response in the space provided or tick (√) as appropriate. All the information provided here will be considered private and confidential for the purpose of this research ONLY.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender; (tick) Male { } Female { }
2. Age;

   Below 25 years { } 26 – 35 years { }

   36 – 45 years { } Over 45 years { }

3. Level of education

   Secondary { } College { }

   Bachelors degree { } Postgraduate { }

4. How long have you been working with this Organization?

   Below 5 years { } 5 - 10 years { }
   11 - 15 years { } Above 15 years { }

5. What is your designation?

Senior manager	[ ]	Manager	[ ]
Assistant manager	[ ]	Other (Specify…………….)	[ ]

SECTION B: PUBLIC REVENUE GROWTH

6. How would you rate the extent to which KRA reforms influence public revenue growth in Kenya?

Very great extent	[ ]	Great extent	[ ]
Moderate extent	[ ]	Little extent	[ ]
Not at all	[ ]		

7. To what extent do KRA reforms influence the following aspects of public revenue growth in Kenya? Rate on a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate extent, 4= great extent and 5 is to a very great extent.

Aspects of public revenue growth	**1**	**2**	**3**	**4**	**5**
Government budgets					
Per capita income					
Gross fixed capital formation					
Gross savings rate					

8. To what extent do you agree or disagree with growth of national public revenue as a result of tax policies at KRA? Use the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree.

Statements	**1**	**2**	**3**	**4**	**5**
KRA reforms facilitate Government budgets					
KRA reforms lead to improved tax collections					
KRA reforms results to improved per capita income					
KRA reforms enhances gross fixed capital formation					
KRA reforms results to improved gross savings rate.					
KRA reforms facilitates achievement of public service targets					

SECTION C: TAX ADMINISTRATION

9. To what extent do tax administration reforms in KRA affect public revenue growth in Kenya?

Very great extent [ ] Great extent [ ]

Moderate extent [ ] Little extent [ ]

Not at all [ ]

10. Rate the extent to which the following aspects of tax administration reforms in KRA affect public revenue growth in Kenya? Use a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate extent, 4= great extent and 5 is to a very great extent.

Tax administration reforms	**1**	**2**	**3**	**4**	**5**
Tax bands					
Tax audit policies					
Taxpayer Regimes and recruitment policies					
Tax returns management policies					
Tax remittance/payment policies					
Tax collection enforcement policies					

11. The following is a list of elements of Tax administration adopted by KRA. Please indicate the extent to which each of them is practiced in the Organization (Tick one for each). Use the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree. Please tick (√) one cell for each statement on employee commitment using the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree

Statement	**1**	**2**	**3**	**4**	**5**
VAT contribute significant revenue to the total taxes collected by KRA					
Tax On Turn Over plays a role in tax administration in KRA					
Income Tax administration is well managed at KRA					
Tax rates are well administered and don’t need review					
Tax on rental Income has enhanced income tax on land lords					
Corporate tax is well managed by the Authority					
Departments in KRA deliver as planned and need no improvement					
KRA review its policies often					

12. Please suggest any other way in which tax administration can affect tax collection by KRA?

…………………………………………………………………………………………………
…………………………………………………………………………………………………
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SECTION D: TAX ENFORCEMENT

13. To what extent do tax administration reforms in KRA affect public revenue growth in Kenya?

Very great extent [ ]　　Great extent [ ]

Moderate extent [ ]　　Little extent [ ]

Not at all [ ]

14. To what extent do the following aspects of tax enforcement reforms in KRA influence public revenue growth in Kenya? Rate on a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate extent, 4= great extent and 5 is to a very great extent.

Aspects of tax enforcement	**1**	**2**	**3**	**4**	**5**
Tax Audits					
Tax Assessment					
Compliance					

15. The following is a list of indicators used for Tax enforcement by KRA. Please indicate the extent to which each of them is practiced by KRA. Use the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree Please tick (√) one cell for each statement using the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree. (Please tick in the appropriate cell against each statement)

Statement	**1**	**2**	**3**	**4**	**5**
KRA has an Audit department					
Audit department has competent personnel					
Audit department conduct tax audits on tax payers often					
Tax audit helps tax payers on compliance					
Tax assessment helps to improve tax payers compliance					
Assessment improves on tax targets at KRA					
Compliance assist in solving tax evasion cases amongst tax payers					
Tax Compliance assists in improving on tax avoidance amongst tax payers.					
Tax audit and compliance assist in increase of more tax payers into the taxable blanket.					

16. Suggest any other way in which tax enforcement can improve on revenue collection at KRA.

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SECTION E: HUMAN RESOURCE REVITALIZATION

17. To what extent does human resource revitalization in KRA affect public revenue growth in Kenya?

Very great extent	[ ]	Great extent	[ ]
Moderate extent	[ ]	Little extent	[ ]
Not at all	[ ]		

18. To what extent do the following aspects of human resource revitalization in KRA influence public revenue growth in Kenya? Rate on a scale of 1 to 5 where 1= no extent, 2= little extent, 3= moderate extent, 4= great extent and 5 is to a very great extent.

Aspects of human resource revitalization	**1**	**2**	**3**	**4**	**5**
Staff recruitment					
Personnel training					
HR development					
Compensation and rewards					

19. The following is a list of HR revitalization dimensions undertaken by KRA. Please indicate the extent to which each of them affects the Authority's performance. Use the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree Please tick (√) one cell for each statement on employee commitment using the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree. (Please tick in the appropriate cell against each statement)

Statement	1	2	3	4	5
KRA has a recruitment wing within the HR department					
The Organisation conducts need analysis to ascertain the gaps					
The Organization advertises before recruiting and placement					
KRA conducts trainings amongst its staff					
Trainings are done often and in accordance with emerging issues					
Trainings are both external and internal					
KRA has HR development programmes for its staff					
The Authority has staff appraisal programme					
Appraisals are done often					
Promotions are done on merit					
Compensations are done on performance					

20. Suggest any other way in which staff revitalization can affect tax revenue growth at KRA.

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SECTION F: BUSINESS AUTOMATION SYSTEM

21. To what extent does business automation system in KRA affect public revenue growth in Kenya?

Very great extent [ ]   Great extent [ ]

Moderate extent [ ]   Little extent [ ]

Not at all [ ]

22. Indicate the performance in KRA as a result of adopting business automation system. (Tick one for each) Use the scale where 1: Strongly Agree; 2: Agree; 3: Neutral; 4: Disagree; 5: Strongly Disagree. (Please tick in the appropriate cell against each statement)

Statement	**1**	**2**	**3**	**4**	**5**
KRA has a performing ICT system					
iTax platform has enhanced KRA service delivery					
itax platform has enhanced improved efficiency at KRA					
itax has contributed to tax revenue growth at KRA					

23. What other information would you like to share about tax policy reforms l Public revenue growth in Kenya?

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24. What do you think should be done to enhance tax policy reforms and public revenue growth in Kenya?

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Thank you for your time and cooperation!

Appendix II: Letter of Administration from JKUAT

James Nyamu Nyaga,

JKUAT ,

P.O. Box 28464,

NAIROBI.

To The Station Manager,

Kenya Revenue Authority,

P.O. Box 48240-00100,

Nairobi.

Dear Sir,

RE: <u>REQUEST TO CARRY ON A RESEARCH STUDY</u>

I am a student at JKUAT taking a Ph.D. course in Business Administration and carrying out a research study in the field of Tax Policy Reforms and Public Revenue growth in Kenya. Am therefore writing this letter to request you permission to carry on a research study in your Organization on the above mentioned matter .Your assistance will be highly appreciated.

Yours faithfully,

James N. Nyaga

Appendix III: A Request Letter to KRA Staff for Questionnaire Filling

James Nyamu Nyaga,

JKUAT,

P.O Box 28464 -00100,

NAIROBI.

The Human Resource Manager,

Kenya Revenue Authority,

P.O. Box 48240-00100,

NAIROBI.

Dear Sir,

RE: REQUEST FOR FILLING QUESTIONNAIRES

I am a student at JKUAT taking a Ph.D. course in Business Administration and carrying out a research study in the field of Tax Policy reforms and Public revenue growth. The purpose of these questionnaires is to collect data which is to be used in assessing the effects of tax policy reforms on public Revenue Growth in Kenya. The information will be strictly treated as confidential. Please assist in filling the questionnaire attached herewith. I will appreciate your co-operation.

Yours faithfully,

James Nyamu Nyaga