THE EFFECT OF THE VALUE ADDED TAX ACT AMENDMENT 2013 ON TAX REVENUE IN KENYA

BY

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DECLARATION

This research project report is my original work and has not been submitted for any award in any other university.

Signed: …………………………………………… Date: …………………………………

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

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DEDICATION

I dedicate this work to my beloved mother, the Late Elizabeth Waiu Muia, my dear wife Mercy K. Inganga for the love and patience and my son Raymond Muthusi that he may excel beyond my achievements.

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I thank God for providing me with good health, determination and strength during the period of writing this research project.

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Lastly, I thank my family members; my wife for the unmatched support and my son for the patience and cooperation during this period.

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ABSTRACT

Kenya has been faced with the need to generate more tax revenue to support its expenditure on public services for both the national and county governments. With the ever increasing budget deficit and increased borrowing to support itself, the cabinet secretary for treasury came up with drastic measures to increase VAT revenue in 2013. The objective of this study was to examine the effect of the VAT Act amendment 2013 on tax revenue in Kenya. The study used secondary data from the Kenya National Bureau of Statistics for the financial year 2006/7 to 2015/16 which provided sufficient dataset for the event study model of analysis used.

The analysis result indicated that VAT revenue and total tax revenue exhibited a continuous growth in the study period. This study found that the amendment of the VAT Act in 2013 led to a general increase in VAT revenue. This was depicted by the sudden increase in domestic VAT revenue after amendment. The revenue growth was highest in the post-amendment period than before the amendment. The growth was more pronounced in the domestic VAT revenue than the import VAT revenue suggesting that consumption was more on the local products than the imports, that most of the consumers preferred local products than importing goods and services.

The government could therefore ride on these findings to tighten any loopholes in the collection of VAT revenue from businesses in Kenya, concentrating more especially on the domestic products which brought in more VAT revenue than the imports.

LIST OF ABBREVIATIONS

ESD	Electronic Signature Device
ETR	Electronic Tax Register
IMF	International Monetary Fund
KIPPRA	Kenya Institute for Public Policy Research and Administration
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
TMP	Tax Modernization Programme
UK	United Kingdom
VAT	Value Added Tax

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The main source of revenue for the government of Kenya is taxation. Marina and Kilis (2002) argued that taxation is the only known concrete means for collecting resources in order to fund public goods and services consumed by any populace. It should however be noted that for developing countries, other sources of revenue include user fees and licenses charged by various government ministries on services rendered, sale of government assets and privatization of various companies and institutions, and foreign aid.

Tax revenue in Kenya has significantly improved in recent years (2003-2011) with an average of 24%, enabling the government to finance 60% of the budget (KIPPRA, 2012). Policies and decisions regarding taxation have thus become serious concerns to the public, businesses and the economy at large given the influence it has on each of these units. Therefore the government has to come up with a tax system which is proper and just to the taxpayers, while not negating the very core business of raising adequate revenue to support its operations.

1.1.1 Tax Revenue in Kenya

Kenya faces the need to create more bases for tax revenue to maintain its services to the public more so with the creation of the 47 County Governments (Kenya Constitution 2010). The new constitution (2010) entrenched a two tier system of government with the national government retaining the powers to impose both direct and indirect taxes, while the county governments impose property, entertainment and other taxes like tax on agricultural products which are allowed under their jurisdiction. The country is also burdened by huge budget deficits, unfavorable balance of trade and the ever increasing foreign debt. The budget deficit in 2012/2013 and 2013/2014 fiscal years was 25% and 68% respectively according to Economic Surveys published by the KNBS. These conditions make it mandatory for the Finance Cabinet Secretary to think of ways to raise revenue to support the needs without overburdening the tax payers every fiscal year.

1.1.2 VAT Revenue Collection in Kenya

Out of the total tax revenue collected in the last decade, income tax contributed 40% while Value Added Tax (VAT) 28%, being the second largest source of government revenue (KIPPRA 2012). The Value Added Tax is an indirect tax which is levied on consumer expenditure (KRA, 2015). This tax is paid for by the final customer of the goods or services. It is imposed on the consumption of taxable goods and services supplied in the country or those that are imported. Prior to the introduction of VAT in Kenya in 1990, there existed the Sales Tax, which had been in operation since 1973. The introduction of VAT was to generate more revenue through the expansion of the tax base, which was confined to sale of goods and services at manufacturing and importation level under the sales tax system (KRA, 2015).

1.1.3 Tax Reforms in Kenya

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

According to Kanyi and Kalui (2014), taxation is the single major source of government fiscal resources in Kenya. Between 1995 and 2004, tax revenue consisted 80.4% of total revenue to the government. Given its central role, taxation is used to raise enough revenue to fund public expenditure without using excessive public borrowing and also mobilize revenue in fair ways which minimize negative economic effects.

The objectives of a tax system include raising revenue for the government, redistributing wealth and to encourage or discourage certain activities mainly by use of various provisions in the tax law. Kenya, like most developing countries, faces problems with its tax systems which include rates and structures which are challenging to manage, systems that are unresponsive to progress, systems that raise little revenue while introducing economic distortions, systems that treat tax payers differently in spite of being in similar circumstances and that are selective with regards to management and implementation, skewed to favor those that are able to cheat the system (KIPPRA, 2004).

VAT replaced the sales tax in the year 1990. The standard rate then was set at 17%, but there were fourteen other different rates (Karingi and Wanjala, 2005). These reduced to eight within a period of one year. Rationalization and lowering of the VAT ceiling rates has been done across the years in order to curb tax evasion and make local products more competitive. Table 1.1 below illustrates the different rates since inception of the VAT in 1990 to date. (Source: KRA, Kenya National Bureau of Statistics' various Economic Survey Publications)

Table 1.1: VAT Rates

Year	No. of Rates	Rates (%)	Standard Rate (%)
1989/90	15	0, 3, 5, 17, 18, 25, 30, 35, 45, 50, 75, 80, 100, 150, 210	17
1990/91	9	0, 5, 18, 30, 45, 50, 80, 100, 150	18
1991/92	8	0, 5, 18, 25, 35, 50, 75, 100	18
1992/93	6	0, 3, 5, 18, 30, 50	18
1993/94	4	0, 5, 18, 40	18
1994/95	4	0, 5, 18, 30	18
1995/96	4	0, 6, 15, 25	15
1996/97	3	0, 8, 15	15
1997/98	3	0, 10, 17	17
1998/99	4	0, 10, 12, 16	16
1999/00	4	0, 10, 13, 15	15
2000/01 to 2002/03	4	0, 10, 16, 18	18
2003/04 to 2006/07	3	0, 10, 16	16
2007/08 to 2012/13	3	0, 12, 16	16
2013/14 to date	2	0, 16	16

Source: KRA, KNBS Economic Survey Publications

VAT introduction was part of the wider Tax Modernization Programme (TMP) which was brought into the system in 1986 to make it more progressive, efficient, equitable and more modern (Muriithi and Moyi 2003). VAT is regarded as an effective way of collecting revenue. It is both modern and broad-based tax that covers the value added to each commodity in its various stages of production and distribution.

Rationalization of VAT rates and lowering of VAT ceiling was to decrease tax evasion, increase the attractiveness of local goods and services, eradicate misclassification, streamline tax administration, increase compliance and also reduce the applications for exemptions. Despite this, there is still need to introduce further measures to curb VAT evasion. Kenya introduced Electronic Tax Registers (ETRs) and Electronic Signature Devices (ESDs) in 2005 to address VAT evasion, inefficiency and poor record keeping for business transactions (KRA, 2010), though this has not solved the problem. According to the Treasury (2011), compliance rate stood at 55% due to distortions and tax leakages due to VAT exemptions and zero rating.

1.1.4 The VAT Amendments 2013

VAT exemptions and zero rating makes the system more complicated and leads to loss of revenue due to low compliance. Prior to the 2013 VAT Act amendment, a total of 395 goods and 22 groups of services were tax exempt. Similarly 416 supplies of both goods and services were permitted as zero rated. The VAT rates in existence were 0%, 12% and 16%. The amendment(2013) permitted exemption to 39 and 18 groups of goods and services respectively, while the zero rated supplies of both goods and services were reduced to 8. It also spelt out 9 categories of supplies to public bodies and privileged persons and institutions to be zero rated, as defined in the VAT Act, 2013, under Part B of the Second Schedule.

1.2 Research Problem

In Kenya, taxation remains the main source of revenue to the government, both national and county (KRA, 2015). Government operations rely on tax revenue in order that they may function well. The National Treasury is taxed with the responsibility of sourcing for the funds through the presentation of the Finance Bill every fiscal year to the parliament for debate and adoption. This also includes allocations to the various departments for public expenditure.

VAT is the second largest tax revenue contributor to the Kenyan Government (Treasury, 2015). It is also pegged to consumption of goods and services in the economy, and all the citizenry are expected to contribute to this tax revenue through the purchase of goods and services which attract VAT. It would be beneficial to the government to alter some of the categories of goods and services to bring them under the VAT bracket in order that more tax revenue is gained.

Nada and William (2009) noted that in Kenya, the responsibility for paying VAT on certain sales rested not only with the seller but also with the buyer. This is enabled through VAT withholding introduced in 2003, and applied initially to government agencies that were purchasing goods and services which attract VAT. It was observed that the government through these agencies was paying VAT-inclusive prices to suppliers, while these suppliers were not necessarily remitting tax to KRA.

Muriithi and Moyi (2003) in Tax reforms and revenue mobilization in Kenya attempted to explain the effect of the tax reforms of 1986 in terms of raising the revenue mobilization capacity of the tax system and how the reforms affected each tax source. The study analyzed the trend of tax reforms for each tax category, and assessed the impact of tax reforms on the overall tax system.

An empirical investigation on VAT and consumption expenditure behavior of households in Nigeria was done by Obiakor et al (2015). They considered VAT revenue, household consumption expenditure on durable and non-durable goods as well as consumer price index for the period 1994 – 2014. Their conclusion was that while VAT and one-period lagged consumption expenditure on durable goods significantly shaped households' consumption expenditure on durable goods; one-period legged VAT insignificantly reduced the consumption expenditure. Their recommendation was that the VAT rate of 5% in operation should be retained because of the significant effects on household consumption expenditure on durable and non-durable goods. Increase in the VAT rate would negatively affect the households and increase the consumer price index to undesired levels.

The above discussions have indicated on the importance of tax revenue to the government and the various measures put into the system to improve tax collection. Despite these measures, budget deficits continue to be witnessed, more so the need to fund expanded government operations (both Central and County government systems) courtesy of the new constitution (2010). The cabinet secretary in charge of Finance came up with drastic measures during the 2013 finance bill presentation in parliament.

The bill which was later on passed into law (2013) aimed at reforming VAT by slashing the exemption to 39 from 395 and 18 from 22 groups of goods and services respectively, while the zero rated supplies of both goods and services were reduced to 8 from 416. This was aimed at simplifying the VAT collection system and increasing revenue. Little is known about the success of this measure on revenue mobilization in the country. This study attempts to fill this knowledge gap. This study will be guided by the question; has the VAT amendment (2013), which brought in most categories of goods and services under the VAT bracket, led to an increase in tax revenue?

1.3 Objectives of this Study

1.3.1 Overall Objective

The main objective is to assess the effect of the VAT Act amendment (2013) on tax revenue in Kenya.

1.3.2 Specific Objective

The specific objective of the study is to establish the effect of the amendment on the total VAT revenue collected in Kenya, and thus the impact of this on the revenue collected.

1.4 Importance of the Study

This study will aid the Kenyan government and policy makers in evaluating the impact of the VAT reforms instituted by the cabinet secretary through the VAT Act (2013) on the tax revenue. It will benefit the policy makers by clearly indicating whether the amendment brought in any significant change in tax revenue therefore if there is need to do further changes to the Act.

It will also contribute to the already existing literature on the VAT structure and reforms in Kenya, while stimulating further research in the area of taxation and in particular as concerns VAT in Kenya. It will form a basis for future research into the effects of changes in the VAT Act.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

There have been many studies carried out in an attempt to develop theoretical and empirical works to bring forth the role of tax reforms in solving the problem of annual budget deficit faced by both advanced and emerging countries. In addition, a number of studies have surveyed the various theoretical and empirical aspects of tax reforms that led to the adoption of VAT by different countries to replace sales tax for example. The findings of other researchers will enrich this study. This chapter will review works of other researchers to form the basis for logical and intellectual argument. It will focus on VAT reforms and revenue productivity in Kenya.

This chapter is divided into four main parts; theoretical review which will include tax theories and principles, empirical review to highlight the research done by other scholars relevant to this study, the conceptual framework and a summary.

2.2 Theoretical Literature Review

A Tax is defined as any leakage from the circular flow of income into the public sector, with the exclusion of loans and direct payments for public goods and services up to the cost of producing them. It is a contribution designed to reduce private expenditure in favor of public expenditure to enable the government provide public and important goods and services, reallocate income, get rid of market inadequacies and make the economy stable (Simiyu, 2008).

Classical theory advances that for the government to realize its revenue target, the principles of equity and justice as advanced by Adam Smith must be met which is not necessarily true due to complexities in the various economies. Different taxation theories have therefore come up including the benefit theory, the cost of service theory and the ability to pay theory.

2.2.1 The Benefit Theory

The benefit theory states that the government should charge taxes on persons according to the benefit received on them. If an individual gets more benefits from the government, he/she should pay more to the state. Several criticisms have been advanced regarding this theory including that there is no direct benefit one expects from the government since tax is an obligatory contribution to the state to meet government expenditure and offer universal benefits to the population. It would be against the basic principle of tax if the state maintained a link between the benefits offered and those received.

It is impossible to approximate the benefit gained by a particular person since the state incurs expenditure for the general citizenry. It would be against the principle of justice if put into practice since the poor, being the biggest beneficiary of the state would be taxed more. This theory was advanced in the seventeenth century by English philosophers Thomas Hobbes (1588-1679) and John Locke (1632-1704), and Dutch Jurist Hugo Grotius (1583-1645) (Saleemi, 2005).

Both the poor and rich pay VAT according to the prescribed rate in Kenya. Though the poor, according to this theory, benefit more from the government, it would not be possible to link the VAT they pay and the benefit accrued for the same.

2.2.2 The Cost of Service Theory

This theory was advanced since some economists like Dalton were of the view that if the government charged actual cost of service offered to the populace, it would satisfy the principles of equity and justice. This can be applied in such services like transport services, postal services and supply of electricity where prices are easy to determine. However, most of the government expenditure cannot be precisely determined neither can it be traced to an individual (Saleemi, 2005).

2.2.3 The Ability to Pay Theory

This theory was advanced in the sixteenth century by the Swiss philosopher Jean Jacques Rousseau (1712-1778), the French political economist Jean-Baptiste Say (1767-1832) and the English economist John Stuart Mill (1806-1873). This theory holds that taxes ought to be imposed according to a person's income or the capacity to pay, which is concurs with progressive tax where the rate of tax increases with increase in the taxable income. People with greater income or wealth should be taxed at a higher rate since they can afford to pay, while those with less income should be subjected to low tax rate.

VAT does not merge with this theory because the total VAT payable on a particular good or service is the same regardless of the individual's income. Thus, VAT may be considered regressive since it denotes a reduced fraction of a person's income as their income increases (Jones and Rhodes, 2011).

2.3 Principles of Taxation

According to the classical taxation theory as advanced by Adam Smith in his book 'The Wealth of Nations (1776)', the most important role of taxes is to provide revenue to the government. Smith rejected government borrowing as an adequate source of revenue. He proposed four main principles of taxation namely equity, certainty, simplicity and efficiency. His work was later on advanced by D. Ricardo, Richard Musgrave and J. Mills.

2.3.1 The Equity Principle

Equity requires that taxes be imposed according to general and objective rules recognized as reasonable and just. These rules are the ones to determine the amount of tax to be paid. This principle supports the benefit theory. Governments should therefore tax resident citizens who may receive some benefits from the state in the country. It would also justify imposing taxes on particular group of persons like fuel levy to motorists since they benefit from road usage. However, taxes are not intended to match the individual benefits enjoyed by the individual. (Simiyu, 2008).

2.3.2 The Certainty Principle

This implies the ability of the taxpayer to find out his/her tax liabilities without actually having the knowledge of taxation. For the taxpayer, certainty makes planning possible and enhances tax acceptability. From the point of view of the tax authority, a certain tax has a higher chance of being raised. The tax law should specify fixed rates of taxation (Simiyu, 2008).

VAT fits well into this principle since it has fixed rates as prescribed by the VAT Act, with different schedules for the taxable goods and services listed in the Act. The government is also certain that VAT will be raised because it is pegged on consumption by the populace.

2.3.3 The Simplicity Principle

A tax assessment and determination should be easy to understand by an average taxpayer. This makes it easy for the taxpayers to comply because taxpayers find it easy to comply with an easy tax system. The tax system thus should be plain, simple to understand and easy for the taxpayer to calculate and ultimately ascertain their tax liability. The taxpayers should not be burdened by a complex tax administration process, thus the tax authority needs to be efficient. This could be achieved by the use of technology/software programs that make it easy to administer (Simiyu, 2008).

The VAT administration in Kenya is complex. The Act spells out different groups of goods and services which are taxed at different rates, currently at 0% and 16%. Some of these categories of goods and services are exempt from VAT therefore the supplier cannot claim input tax from the government, which ends up lumping this to the final consumer price figure. The complexity of this tax leads to major lack of compliance by the tax payers (KRA, 2011).

2.3.4 The Efficiency Principle

The government, in its quest to collect revenue from the citizenry, should do so without impairing productive capacity, reducing incentives and distorting the allocation of resources. If the costs related to tax collection are more than the total revenue collected, then it would not be worthwhile to levy it. The more complicated a tax system is, the more resources it would take the government to employ in order to collect tax, therefore the higher the cost. Therefore, the tax collection systems should be simple and tax laws should not be subject to different interpretations.

Taxation may impair productive capacity by infringing on the minimum consumption of the people especially the poor. It may reduce saving and capital formation (Simiyu, 2008). VAT, being a tax pegged on consumption, may end up not achieving the targeted tax revenue if it becomes a burden to the consumers who may reduce consumption of goods and services which are subjected to tax, but instead opt out for substitutes which are not subjected to VAT.

2.4 Empirical Literature Review

Bird and Gendron (2006) carried out a research on whether VAT was the best way to levy overall consumption tax in emerging countries. They narrowed their research on two developing countries; Ukraine and Jamaica. Although the results revealed that the VAT revenue had declined steadily since the introduction of VAT in Ukraine in the 1990s while VAT collection efficiency and productivity for Jamaica was above average, they concluded that on the whole if general consumption tax was needed in any country, VAT would be the best choice in almost all cases. However, there are criticisms to VAT in that in developing countries, the informal economy, and those who may not be operating bank accounts may not be known to the tax authorities, therefore VAT may not be fully captured by the state (IMF, 2004).

A study was done by Kanyi and Kalui (2014) on the effects of tax policy reforms on tax revenue in Kenya. It was directed by two objectives; being the correlation between domestic taxes policy reforms and tax revenue in Kenya and to establish the effect of customs policy reforms on tax revenue in Kenya. The study's conclusion was that there was evidence that the various tax reforms in Kenya resulted in significant increase in total tax revenue. In Kenya, taxation constituted 80.4% of total income including donations between 1995 and 2004 (KRA, 2004). The study suggested that in order that the country maintained the culture of viable growth, there was urgent need for appraisal and streamlining of the nation's tax policy and administrative structure.

Cashin and Unayama (2012) carried out a case study on the short-run distributional effects of VAT rate change in Japan. They focused on Japan's consumption tax rate increase in 1997. There were large expenditure fluctuations around the tax increase driven by arbitrage effects for durable and storable non-durable goods, however overall distributional effects were small, almost negligible. A step-by-step rate increase would be preferable in order to avoid large economic fluctuations and the associated distributional effects.

Okoli and Matthew (2015), in their study; ‘Correlation between Value Added Tax (VAT) and National Revenue in Nigeria: an ECM Model’ found out that VAT was the second long term source of the total federally collected revenue and that VAT and Petroleum Profit Tax (PPT) contributed positively to federally collected revenue. VAT’s positive correlation indicates its potential to contribute more in future if all loopholes were to be plugged. VAT had shifted the burden of tax toward consumption rather than savings hence encourages investment, leading to increase in the level of national income. The study recommended all administrative gaps be sealed for VAT revenue to contribute more significantly to federally collected revenue of the country.

Ahmed et al (2015) sought out to establish the correlation between VAT rate increase and consumers’ consumption. Their study was based on the United Kingdom’s government new economic policy increasing the VAT rate from 17.5% to 20% which was to establish the impact of this change on the population’s consumption. They found out that VAT rate increase highly correlated with consumers’ consumption habit with the highest coefficient of correlation being between VAT increase and change in consumers’ purchasing power. The study also found positive correlation between VAT increase and change in consumers’ lifestyle, annual income and customers’ buying behavior, age and customers’ buying behavior.

Alm and El-Ganainy (2012) studied the relationship between VAT and Consumption. Their study revealed that the effective VAT rate is has a negative correlation to the level of total consumption. They had a sample of fifteen EU countries and the scope of the study was between

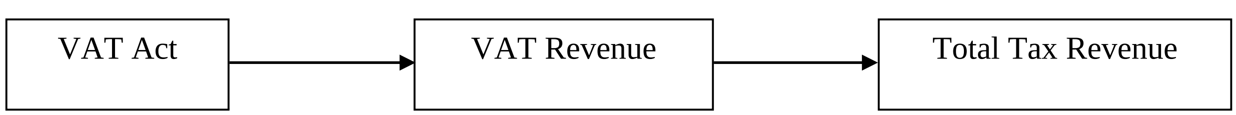
1961 and 2005. The results were also consistent with the view of proponents of consumption taxes that taxing consumption instead of income generates more savings and thus leads to economic growth. Consumption taxes discourage consumption, encourage savings by the consumers who in turn channel these savings to higher economic growth prospects. Their experiential outcomes indicated that one percentage increase in the VAT rate led to roughly a one percent decrease in the level of total consumption in the short run and to an even greater decrease in the long run.

2.5 Conceptual Framework

VAT is the second largest contributor to the total tax revenue in Kenya. It is also based on consumption of goods and services which have VAT levied on them. Any change in the law which affects goods and services that attract VAT will likely increase or decrease their consumption. This will affect the VAT revenue, which in turn has an impact on the total revenue collected. The study will show the impact of the 2013 VAT Act amendment which made many of the previously zero-rated goods to attract VAT while at the same time reduced the number of categories of exempt goods and services

The diagram below (Diagram 2.1) is the pictorial presentation of the conceptual framework which will guide the study;

Diagram 2.1: Conceptual Framework



2.6 Literature Review Summary

The literature reviewed confirms the importance of VAT as an avenue for raising tax for the government. At the same time, VAT has a strong effect on the consumption behavior of the populace, and that it would discourage consumption of goods and services by the consumers. This study seeks to establish whether the drastic measures put in place by the cabinet secretary of Finance in Kenya in the publication of the 2013 VAT amendment bill brought any effect on the consumption expenditure by consumers and the effect of this on the tax revenue to the government. Specifically, this study will establish whether the changes brought about by the 2013 VAT Act amendment in Kenya brought any significant revenue to bridge the challenges brought about by an ever increasing budget deficit. Table 2.1 below shows the annual Kenyan Deficit from 2009/2010 to 2015/2016

Table 2.1: Kenya Revenue Deficit (Figures in Kes. 'Million)

Period	Revenue	Expenditure	Deficit	% Deficit
2015/2016	1,217,400	1,886,000	(668,600)	55%
2014/2015	1,176,225	1,710,165	(533,940)	45%
2013/2014	991,871	1,308,863	(316,992)	32%
2012/2013	812,480	1,066,285	(253,805)	31%
2011/2012	736,107	915,821	(179,714)	24%
2010/2011	673,288	824,914	(151,626)	23%
2009/2010	643,321	704,733	(61,412)	10%

Sources: KRA, KNBS Economic Survey Publications

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter gives a comprehensive analysis of the design of the research, model specification, data collection, methods and estimation procedures, data types and sources. This is so as to achieve the objectives of the study.

3.2 Research Design

The research design used in this study was descriptive. The study identified the effect of VAT Act Amendment of 2013 on tax revenue in Kenya. The study estimated the past trends of VAT revenue and compared this with post amendment period collections. It involved quantitative analysis of VAT revenue. The study adopted an event study methodology to investigate whether the 2013 VAT Act Amendment had any effect on the tax revenue collected in Kenya.

An event study is an analysis of the effect of an unanticipated event on the expected outcome in an industry, sector or the overall market. This method has been used in many fields to measure the effects of an economic event in various sectors of the economy (MacKinlay,1997). The study examines the effect of an event on the normal trend of returns, in this case VAT revenue. The estimation window comprised of six years' VAT revenue collections used to estimate the trend prior to the VAT Act Amendment period. The trend model is important in determining the consumers' reaction towards the amendment. It measures the deviation of VAT in the post amendment period as compared to the expected normal VAT revenue collections.

3.3 Data Collection Methods and Sources

The quantitative secondary data relating to VAT collections and total tax revenue was collected from statistical abstracts, KRA Publications and economic survey publications by the Kenya National Bureau of Statistics. The study used year 2006 to 2016 data since the amendment to the VAT Act was done in the year 2013, therefore the effects of this on VAT and tax revenue would start taking effect as from 2013 onwards.

3.4 Data Analysis

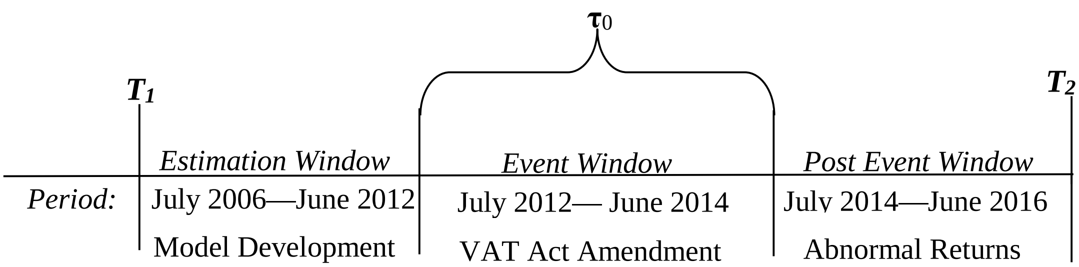
Descriptive data analysis was used to study the performance of VAT across the study period. The results were presented on tables and graphs. The effect of the VAT Act Amendment 2013 was then determined using the event analysis by determining pre and post amendment VAT revenue collections where the deviation was examined. The deviation can either be positive, neutral or negative.

3.5 Model Specification

The study is aimed at bringing out any major change in the tax revenue affected by the amendment done to the VAT Act of 2013 which roped in most of the consumable goods and services under the tax bracket. Given that there is a negative correlation between consumption and VAT, this study was to show the statistical significance of the VAT amendment on the total revenue collection in Kenya.

The pre and post amendment VAT revenue collections were compared against the expected and actual collections to compute abnormal collections, which represents the effect of the VAT Act amendment 2013 on tax revenue in Kenya. The growth in post amendment trend represented by positive abnormal collections indicates positive effect, a negative indicates negative effect, while if there is no growth, it means no effect. The study period comprised of 6 years pre-amendment and 2 year post-amendment setup. The average growth in VAT revenue collections would be determined and projected over the post-amendment period. The effect was then examined by observing any abnormal changes in VAT revenue following the amendment. The effect of the amendment was derived by subtracting the trended model for the 2 year post amendment period. The study adopted a constant growth VAT model. The timeline for the event study is as shown below

Diagram 3.1: Time line for the event study



The event period (2 years from 2012 to 2014) is represented as $\boldsymbol{\tau}_0$ and the estimation window is represented by the distance between $\boldsymbol{T_1}$ and $\boldsymbol{\tau}_0$. SPSS software was used to determine the trends of the estimation window. The estimation generated the following model used to compute normal collections;

$$\mathbf{Y}_t = \boldsymbol{\alpha} + \boldsymbol{\beta} * \mathbf{t} + \boldsymbol{\varepsilon} \text{......................................} \textit{Equation 3.1}$$

Where $\mathbf{Y}_t$ represents the normal VAT collection in time $\mathbf{t}$, $\boldsymbol{\alpha}$ is the intercept at the beginning of the model while $\boldsymbol{\beta}$ is the slope which measures the growth of VAT collection over time. $\boldsymbol{\varepsilon}$ measures the white noise caused by seasonal variability in VAT revenue collections.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This section details the descriptive and analytical results of the study. The performance of VAT revenue for ten years will be described in this study. This is so as to realize the purpose of the study. Through an event study methodology, data collection and analysis, the information yielded seeks to describe the effect that the amendment of the VAT Act 2013 had on tax revenue in Kenya.

4.2 Descriptive Statistics of VAT Revenue

The tables 4.1 (a) and (b) reveal that domestic VAT dominated the total tax collection within the 10 annual periods from June 2006 to June 2016, yielding better returns than both VAT on oil and VAT on other imports if comparison of means is taken into account.

Table 4.1(a) Analysis of Means

	Mean	**N**	**Std. Deviation**
VAT on oil imports	7282.9080	10	2798.10815
VAT on other imports	81042.1930	10	30943.97595
Domestic VAT	96637.3870	10	47792.49273
Total VAT	184962.4870	10	77137.10979

Table 4.1(b) Analysis of Correlation

		VAT on oil imports	VAT on other imports	Domestic VAT	Total VAT
VAT on oil imports	Pearson Correlation	1	.846**	.878**	.920**
	Sig. (2-tailed)		.002	.001	.000
VAT on other imports	Pearson Correlation	.846**	1	.784**	.918**
	Sig. (2-tailed)	.002		.007	.000
Domestic VAT	Pearson Correlation	.878**	.784**	1	.966**
	Sig. (2-tailed)	.001	.007		.000
Total VAT	Pearson Correlation	.920**	.918**	.966**	1
	Sig. (2-tailed)	.000	.000	.000	
**. Correlation is significant at the 0.01 level (2-tailed).					

The inference is further supported by table 4.1(b) in which a relatively higher correlation is observed between total VAT and domestic VAT. Looking at individual components, the Pearson correlation statistics reveal that the modes of VAT revenue exhibit a strong positive correlation with domestic VAT and VAT on oil imports highly correlated at 87.8%, and VAT on other imports being highly correlated with VAT on oil imports at 84.6%.

However, the correlation between VAT on other imports and domestic VAT is slightly lower at a 78.4% correlation. This may be attributed to the fact that some imported products compete with those of similar mold in the local market, and the resultant antagonistic effect will reduce the margins collected in both tax domains; ideally increased importation should serve to enhance volume of trade and inadvertently increase the domestic VAT collected.

Increased volume of trade should directly impact on total VAT collections, and a high correlation is exhibited in this relationship at 98.8% as indicated below; table 4.1(c)

Table 4.1(c) Revenue collection correlation with VAT

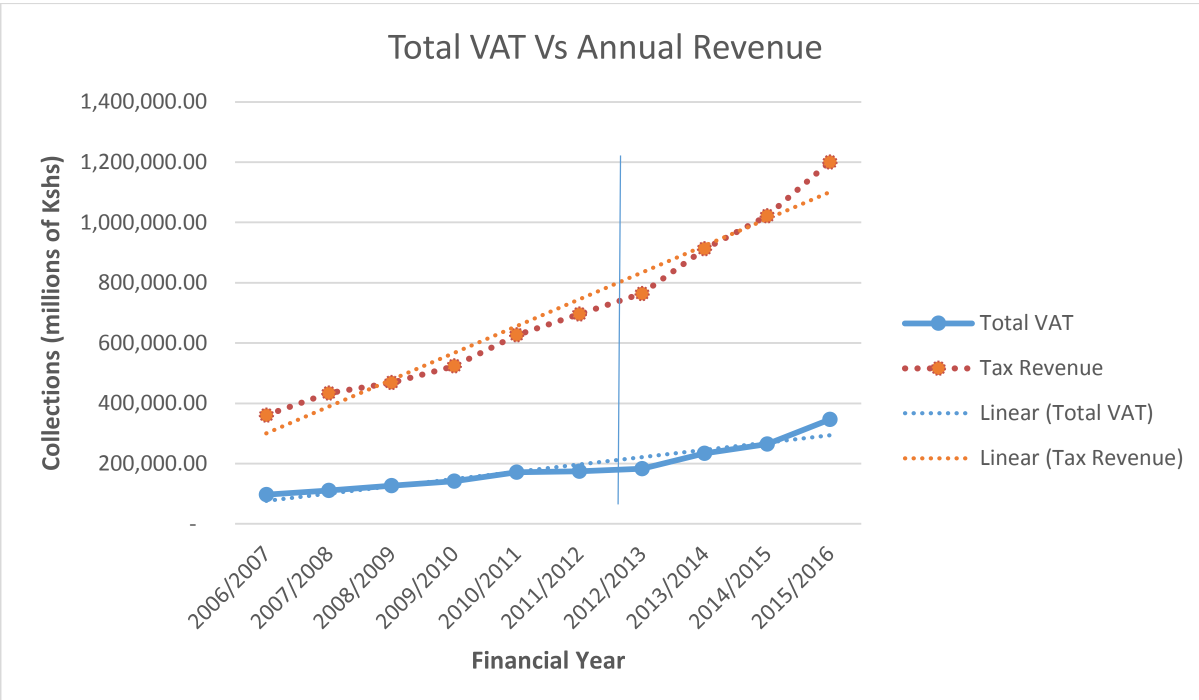
		Total VAT	Tax Revenue
Total VAT	Pearson Correlation	1	.988**
	Sig. (2-tailed)		.000
Tax Revenue	Pearson Correlation	.988**	1
	Sig. (2-tailed)	.000	

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

Of the two domains, that is, VAT revenue and total tax are compared over the ten year spread, as indicated in Figure 4.1 below, a general upward trend is observed both in the total VAT collected and the annual revenue stream.

The gradual positive trend upward is maintained up until the end of the 2012/2013 when there is a sharp increment upwards indicating an upsurge in the total revenue collections. A similar scenario is observed with the total VAT, though not as marked. The sharp spike in collections continues upwards through to the completion of the 2015/2016 fiscal year.

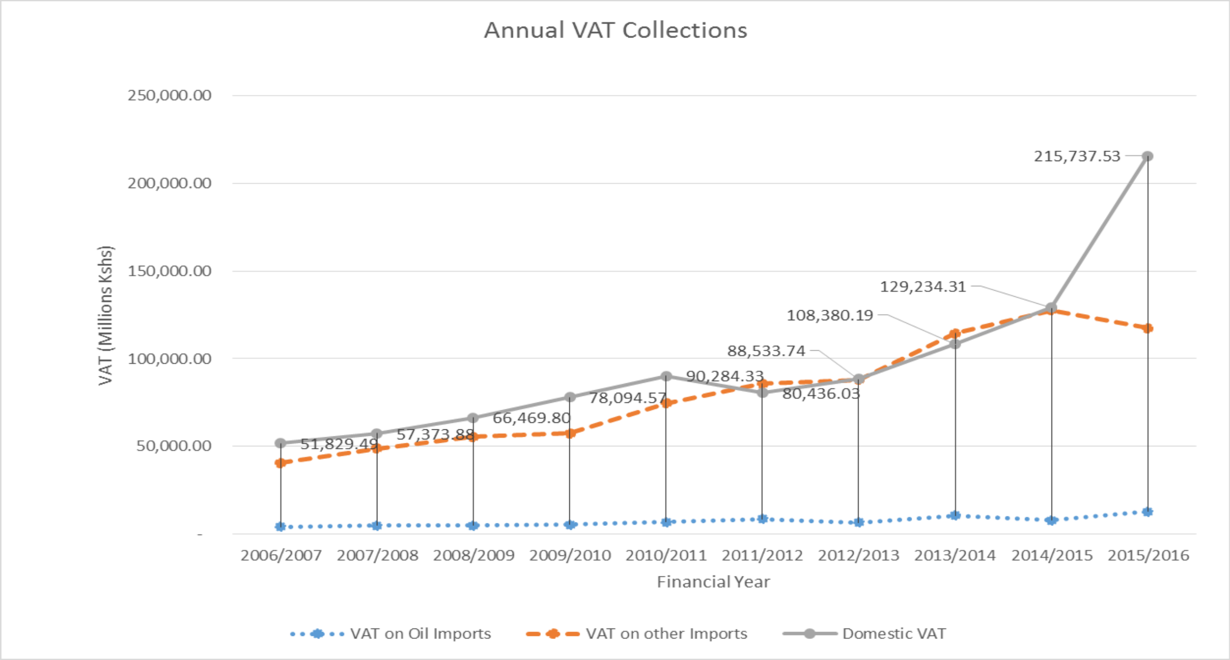
Figure 4.1 Total VAT and tax revenue over time



The period in which there is an upsurge in revenue collections coincides with the 2013 VAT Act Amendment, which may have resulted in this positive spike in the revenue collection. Further, disaggregation of the total VAT collections also yields a similar scenario in the domestic VAT annual volumes as shown on Figure 4.2.

The VAT on oil imports remained relatively stable throughout the study period which could be attributed to the largely unchanged prices of refined crude in the international market. This changed in the 2014/2015 financial year when world crude prices fell. Though a concomitant price reduction was not evidenced for over 6 months in the country, the VAT collections on imported oil fell as the local suppliers reduced importation of refined crude as they purposed to offload previous stock that was procured at a higher price. The high fuel prices resulted in increased cost of ferrying goods to sales sites in the local market, leading to a sharp increase in cost of goods and a resultant increased domestic VAT collection from higher prices of goods.

Figure 4.2 Trends for the Various Tax Domains



The reduction of pump prices in the 2015/2016 financial year led to increased consumer uptake of fuel, as more of the consumers were able to comfortably fuel their vehicles – they had only used them sporadically prior to this period. This led to higher discharge of fuel volumes in the market and a resultant increased importation of refined crude. Consequently, the VAT on oil imports increased.

Domestic VAT collections increased by 66.94% points in the period between the 2014/2015 and 2015/2016 financial year. Conversely, the VAT on other imports decreased with reduced fuel prices. Suppositions can be drawn as to the reason why this unusual occurrence took place despite reduced volume of trade (with reduced imports).

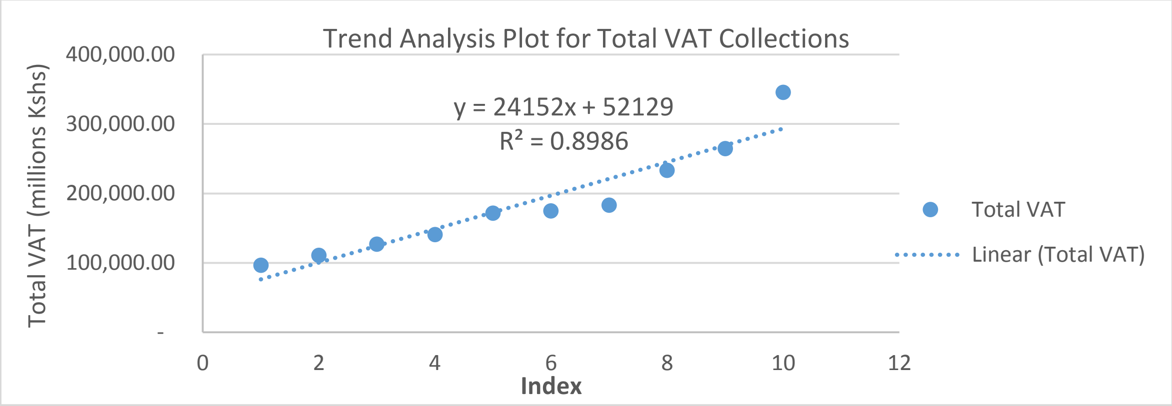
High prices of fuel in previous financial years could have led to increased cost of production. This in turn would have led to higher prices on finished products, including consumables that were roped in to the tax bracket with the 2013 VAT Act amendment. Manufacturers and wholesalers may have hoarded some products, and later released them into the market at a reduced rate. This would have led to increased consumer purchases, and thus increased revenue on sales. The domestic VAT revenue would then go up in tandem with increased sales.

The VAT Act Amendment also led to a more streamlined revenue collection apparatus being set in place, with more stringent follow-up mechanisms on non-compliance to tax remittances. This may have led to improved compliance by institutions and individuals towards meeting local tax obligations.

4.3 Results of the Event Study

The total VAT revenue (being a composite of VAT on oil imports, VAT on other imports, and domestic VAT) is the endogenous construct whose variation the event study is primarily focused on. Through analysis of both the pre-amendment and post-amendment periods as concerns the VAT Act 2013, changes in the total VAT accrued were then established. In this case, the exogenous variable was taken to be the Tax Revenue. Using the model developed a time series plot was derived. A trend line was superimposed on the plot to help estimate the projected VAT revenue. The trend line was then used to extrapolate future outcomes as far as total VAT revenue is concerned.

Figure 4.3(a) The Trend of Total VAT collections over Time



However, the model above does not account for the residuals, ε (also referred to as white noise) that indicates variation of Actual Total VAT data points from the predicted fit. These residuals constitute the Abnormal VAT collections but can be determined through regression so that the original model stated is adhered to, that is,

$$\mathbf{Y}_t = \boldsymbol{\alpha} + \boldsymbol{\beta} * \mathbf{t} + \boldsymbol{\varepsilon}$$

Where $\mathbf{Y}_t$ represents the normal VAT collection in time **t**, **α** is the intercept at the beginning of the model while **β** is the slope which measures the growth of VAT revenue over time. **ε** measures the white noise caused by seasonal variability in VAT revenue.

Regression analysis yields the parameters below:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-48396023.215	5769045.084		-8.389	.000
	Financial Year	24151.621	2868.028	.948	8.421	.000

[a]. Dependent Variable: Total VAT

Thus, the equation yielded that would be used to determine the analysis points of reference is

$$\mathbf{Y_t = -48396023.215 + 24151.621{*}t + \varepsilon}$$

This produces the analysis points of reference as indicated in table 4.3(a) below:

Table 4.3(a) Variations in Total VAT Revenue (Kshs millions)

Annual Period	*Actual Total VAT*	*Normal Total VAT (Yt=24151.621*t-48396023.215)*	*Residuals*
June 2007	96573.27383	76280.19359	20293.08024
June 2008	111008.2859	100431.8142	10576.47167
June 2009	126877.7121	124583.4348	2294.277295
June 2010	141040.9456	148735.0555	-7694.109853
June 2011	171679.0628	172886.6761	-1207.613257
June 2012	174787.5527	197038.2967	-22250.74401
June 2013	183218.5096	221189.9173	-37971.40775
June 2014	233557.5269	245341.5379	-11784.01102
June 2015	264871.6687	269493.1585	-4621.489845
June 2016	346010.3257	293644.7792	52365.54653

Table 4.3(a) above indicates the predicted normal Total VAT along with the actual Total VAT revenue. The results indicate that the revenue exceeded the projected values up until the close of the June 2010 financial year where the performance of the Total VAT revenue fell below the projected targets. Projected values kept exceeding the actual revenue up until the end of the June 2015 financial year. Though it may appear that there is a negative trend in meeting revenue targets, it is actually positive after the event window in 2013 as the variation in projected revenue increases from -37971.40775 in June 2013 to -4621.489845 in June 2015. This positive trend of growth in tax revenue came after the amendment of the VAT Act; it is clearly evident that there were shortfalls in the VAT collected from June 2010 to June 2013 (reduced from -7694.109853 to -37971.40775) showing that the positive growth spurt begun at the close June 2013.

By end of June 2016 the targets for Total VAT revenue were met and exceeded by almost Ksh.52 Billion. This spike can be attributed to the stricter tax regime instituted and campaigns launched to sensitize the public on submitting their individual tax returns. This, combined with the i-tax framework, helped rope in a larger part of the populace into the tax bracket – which led to a rise in domestic VAT revenue, and a rise in the composite Total VAT collections.

Looking at the period after the amendment of the VAT Act, the regression analysis using the equation for the period yields the results for projected Total VAT collections as follows:

Table 4.3(b) Projected Total VAT Revenue after VAT Act Amendment

Financial Year	*Actual Post 2014*	*Predicted Post 2014* *(Yt= 56226.3994*t-113014714.9)*	*Residuals*
Jun-14	233557.5269	225253.441	8304.085866
Jun-15	264871.6687	281479.8404	-16608.17173
Jun-16	346010.3257	337706.2398	8304.085866

The regression equation employed in this case is:

Yt= - 113014714.9 + **56226.3994*t + ε**

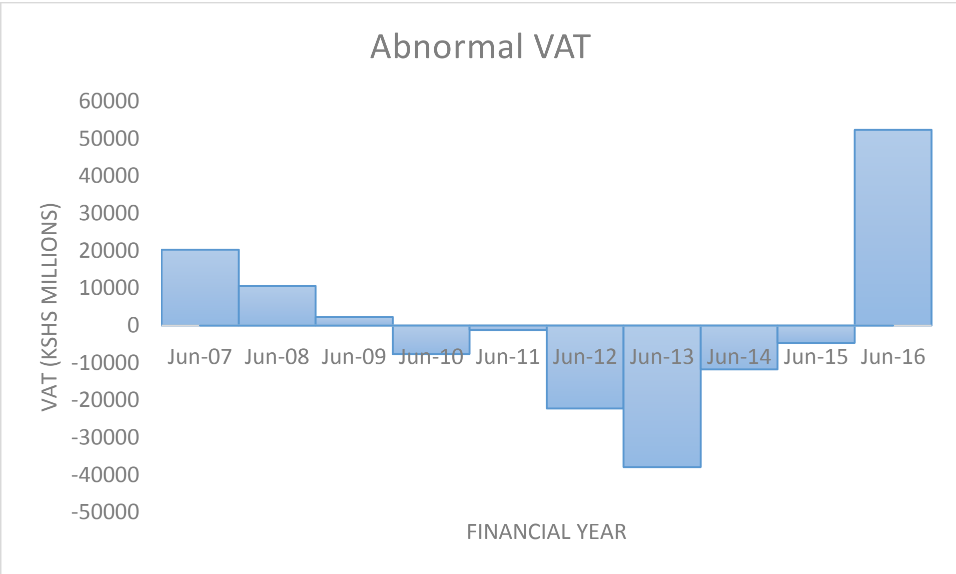
Despite the positive growth spurt being evident in the whole dataset model after the event window, it appears that there is a shortfall in revenue at the end of the financial year June 2015. This can be attributed to the extended open period that the taxpayers were granted to comply in filing both individual tax returns as well as those for small businesses through the i-tax platform.

Domestic tax revenue was observed to have increased at this time, though the VAT on other imports decreased as shown on figure 4.2. Since this coincides with the introduction of harsh penalties for non-compliance, it may be presumed that individuals that imported goods in high volumes diverted their resources during this period to settle their domestic tax obligations –

which may have caused a drop in importation volumes and a subsequent drop in VAT on other imports (leading to a decreased composite on Total VAT revenue).

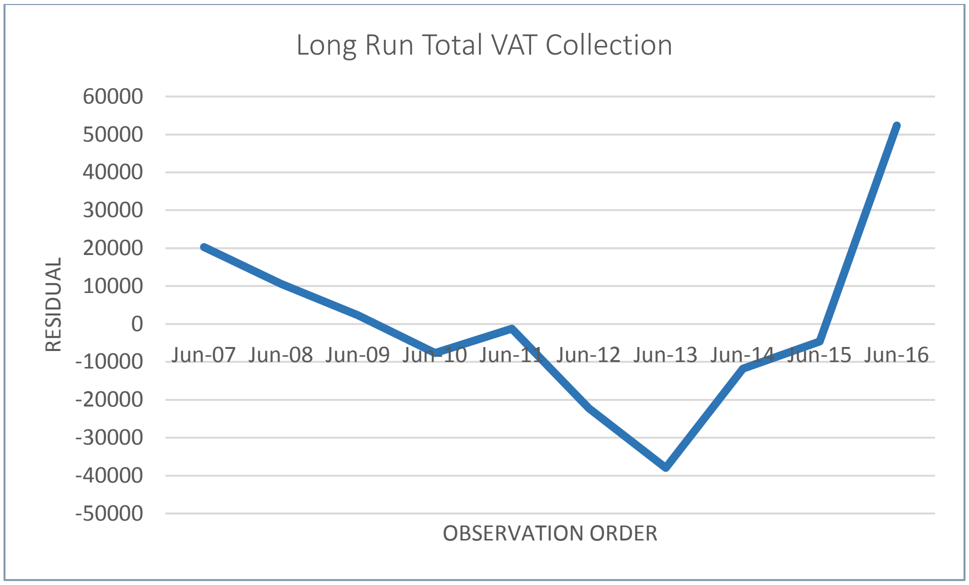
The long term growth in VAT revenue was further investigated by analyzing the residuals of the regression model over the whole study period. The plot derived is as in figure 4.3(b) below:

Figure 4.3(b) Abnormal VAT Collections



It can be observed that prior to the event window there had been a downward trend in the Total VAT collected annually. However, during the event period in June 2013 an upward growth in Total VAT collected was observed through to the end of the study period where there was a marked positive increase. This comes out more clearly if a histogram is superimposed on the chart above (figure 4.3b). The histogram is represented in figure 4.3(c) below:

Figure 4.3(c) Long term trend in VAT collection



It is evident that after the event window in 2013 the negative trend in collections stopped, and a positive growth begun and continued on through to the end of the study period. Despite a reduced positive growth between June 2014 and June 2015, there was a sharp positive growth in the collection of VAT (especially after June 2015). The period after June 2015 coincides with increased compliance by tax payers in order to avoid imposition of fines for late remittances of tax; this also explains the increase of great magnitude in domestic VAT collection for the period June 2015 to June 2016.

4.4 Summary

Overall indications from this event study are that despite the positive upward growth in VAT revenue over the period of consideration, magnitude of the impact of growth in revenue was felt after the amendment of the VAT Act 2013. The main protagonist in contributing to the upward growth of VAT growth has been the domestic VAT revenue which registered the greatest spike in terms of upward growth (shown by its high variability) during and after the event window. Trend analysis indicates a general upward increment in Total VAT revenue, with a sudden growth spurt in the period succeeding the event window. In conclusion, the amendment of the VAT Act 2013 had a positive impact on the Total VAT revenue in Kenya.

CHAPTER FIVE

SUMMARY AND CONCLUSION

5.1 Introduction

The objective of the study was to establish whether the amendment of the VAT Act 2013 and the subsequent implementation of the same led to an increase in the tax revenue. This chapter provides a summary of the research findings, conclusions, limitations of the study and recommendation for further research.

5.2 Summary of Research Findings

The cabinet secretary in charge of treasury recommended drastic changes in the VAT Act in his finance bill of 2013 which were enacted into law. This study examined the effect of these changes on the VAT revenue. The study focused on the period after the VAT Act amendment and the subsequent years respectively. The findings indicated that VAT revenue has consistently increased over the study period, with the domestic VAT element being the highest for the period under review. The increase in domestic VAT revenue is consistent with the increased number of goods and services which were brought into the VAT bracket by the VAT Act of 2013. The results indicate that the actual VAT revenue exceeded the normal (expected) VAT after the VAT Act amendment.

5.3 Conclusions

This study found that the amendment of the VAT Act in 2013 led to a general increase in VAT revenue. This was depicted by the sudden increase in domestic VAT revenue after amendment. The revenue growth was highest in the post-amendment period than before the amendment. The growth is more pronounced in the domestic VAT revenue than the import VAT revenue suggesting that consumption was more on the local products than the imports, that most of the consumers preferred local products than importing goods and services.

5.4 Limitations of the Study

The key constraint of this research was the focus of only one component of the total tax revenue, that is, the VAT revenue. Other components include consumption, the overall economic growth rate, the level of employment among others. Another limitation was time constraint, which was overcome by relying on the readily available secondary data as opposed to collecting primary data. This however did not compromise on the validity and reliability of the research findings.

5.5 Recommendations for Further Research

The research looked at the effect of the VAT Act 2013 amendment on VAT revenue. Other areas of study that can be explored include the effect of the VAT Act amendment 2013 on consumption, the effect of the amendment on the Kenyan economy and the level of employment. Research could also be done on similar amendments on VAT Acts in other countries.

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APPENDICES

Appendix 1

					Kes. in Millions
Financial Year	**VAT on Oil Imports**	**VAT on other Imports**	**Domestic VAT**	**Total VAT**	**Tax Revenue**
2006/2007	4,144.82	40,598.96	51,829.49	96,573.27	360,190.89
2007/2008	4,932.18	48,702.23	57,373.88	111,008.29	433,915.33
2008/2009	4,850.61	55,557.30	66,469.80	126,877.71	468,151.70
2009/2010	5,352.47	57,593.91	78,094.57	141,040.95	523,633.34
2010/2011	6,859.76	74,534.98	90,284.33	171,679.06	626,668.74
2011/2012	8,607.92	85,743.60	80,436.03	174,787.55	695,887.71
2012/2013	6,661.29	88,023.48	88,533.74	183,218.51	763,828.34
2013/2014	10,621.06	114,556.28	108,380.19	233,557.53	911,803.70
2014/2015	7,893.69	127,743.67	129,234.31	264,871.67	1,021,973.86
2015/2016	12,905.28	117,367.52	215,737.53	346,010.33	1,200,158.89

Source: KNBS Economic Survey Publications