THE EFFECT OF ENFORCEMENT MEASURES ON VALUE ADDED TAX REVENUE FOR FIRMS IN THE LARGE CORPORATE TAXPAYER CATEGORY IN KENYA

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DECLARATION

This research project is my original work and has not been submitted for a degree in any other university

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DEDICATION

This project is dedicated to my dear mother Lillian Ndumia for her encouragement during my entire study period. My brothers Edward and Stanley and sister Anne Ndumia for their continued support and encouragement throughout the process.

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LIST OF ABBREVIATIONS

ATO   - Australian Taxation Office

CBK   - Central Bank of Kenya

DTD   – Domestic Taxes Department

EU   - Expected Utility

GDP   – Gross Domestic Product

HMRC   - Her Majesty's Revenue and Custom

IRS   - Internal Revenue Service

KIPPRA   - Kenya Institute of Public Policy Research and Analysis

KNBS   - Kenya National Bureau of Statistics

KRA   – Kenya Revenue Authority

LTO   - Large Taxpayer Office

MST   – Medium and Small Taxpayers

MTO   – Medium Taxpayers' Office

OECD   – Organization for Economic Co-operation and Development

PAYE   – Pay As You Earn

RTD   – Road Transport Department

TR&MP   – Tax Reform and Modernization Program

VAT   – Value Added Tax

WHVAT   – Withholding VAT

ABSTRACT

A stable Revenue collection helps promote and strengthen a country's revenue collection targets. This helps countries meet their expenditure within a certain financial period. The Kenya Revenue Authority is tasked with this very important duty. Considering its basic function which is to collect and administer tax system in the country, it has to ensure that it has put in place the right measures to attain this goal .The purpose of this study was to establish the effect of enforcement measures on Value Added Tax revenue for firms in the large corporate taxpayer category in Kenya. The total population consisted of all 1052 large firms operating in Kenya as categorized by KRA. Since the population of the study was large, sampling was necessary .The sample size consisted of 106 firms in the Large Taxpayers' Office. The study used secondary data which was readily available from the Kenya Revenue Authority and the Kenya National Bureau of Statistics. The study adopted a descriptive survey of the firms in the large taxpayer category. It has been thought strong tax enforcement measures on the VAT revenue for firms can contribute significantly to the attainment of the goal of revenue collection Secondary data was collected from KRA annual reports on VAT revenue from 2008 to 2014. Regression analysis was conducted in order to establish the effect of enforcement measures on Value Added Tax revenue for firms in the large corporate taxpayer category in Kenya The dependent variable of the study was the VAT revenue. It is a proportion of the contribution of VAT revenue to the GDP. The enforcement measures; audit rate, penalties and criminal sanctions were the independent variables of the study. The findings from the study showed that enforcement measures such as audit rate, imposition of penalties, criminal sanctions and another determinant of VAT revenue; the contribution of imports to VAT revenue, had varying degrees of relationship to the Value Added Tax revenue for firms in the large corporate taxpayer category. The study revealed that audit rate, penalties and contribution of imports to VAT revenue positively influenced Value Added Tax revenue for firms in the large corporate taxpayer category, whereas criminal sanctions negatively affected Value Added Tax revenue for these firms. The study recommends that more emphasis should be on conducting VAT audits by the tax agency and also impose penalties on non-compliant taxpayers as this will yield to more VAT revenue.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Unlike their developed counterparts, most developing countries rely heavily on taxes to finance their budgetary expenditures. In Kenya, taxation is the single largest source of government budgetary resources (Moyi & Ronge, 2006). One of the striking characteristics of Kenya is that unlike many other sub-Saharan countries today, it is a high tax-yield country with a tax-to-GDP ratio of over 20 per cent (KIPPRA, 2006).

The Kenya Revenue Authority (KRA) is the predominant government revenue collection agency accounting for over 96% of government ordinary revenue.KRA administers 17 revenue Acts, with the key ones (in terms of revenue importance) being Value Added Tax (VAT Cap 476), Income Tax Act (Cap 470), East Africa Community Customs Management Act (EACCMA), The Customs and Excise Act (Cap 472) and the Traffic Act Cap 403 (Cherogony, 2013).

Value Added Tax has become the most common consumption tax in the world. It was first introduced in France in 1954. Its essence is that it is charged at all levels of production, but with the provision of some mechanism enabling firms to offset the tax they have paid on their own purchases of goods and services against the tax they charge on their sales of goods and services. Although this characteristic feature is very clear cut, the VATs observed in practice show considerable diversity as regards, among other things, the range of inputs for which tax offsetting is available and the range of economic activities to which the tax applies, that is, the base of the tax (Ebrill, Keen, Bodin and Summers, 2001).

VAT was introduced in Kenya in 1990 to replace sales tax which had been in existence since 1973. Compared with other indirect taxes, VAT has more revenue

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potential: it is more broad-based and entails a trail of invoices that helps improve tax compliance and enforcement (Simiyu, 2003).Tax modernization programs under Tax Reform and Modernization Programs (TR & MP) were initiated in Kenya back in 1986 with the main objective of broadening the government's revenue base and regulating the expenditure through strict fiscal controls. This gave birth to the adoption of VAT system whose aim was to bring in more revenue for the government. These reforms have continuously been carried out to revamp the growth in revenue for the government to meet its huge budgetary needs. Despite these programs, VAT has not been responsive to the changes in reform and has remained very rigid to changes in GDP. (Kotut & Menjo, 2012).

Value Added Tax, like any other tax, is vulnerable to evasion and fraud, although it has some distinctive features that make it less vulnerable than other forms of taxation (Keen & Smith, 2007). Over the last few years however, there has been a marked increase in losses of VAT revenue through evasion and fraud. For example, in the European Union (EU), the abolition of internal EU frontiers at the end of 1992 opened up new areas of vulnerability. In March 2006 the first ever fall of in annual nominal VAT receipts in the United Kingdom was attributed by some to fraud (Ainsworth, 2006). In Kenya, the poor performance in VAT revenue has been exacerbated by VAT evasion which has been a major drawback on VAT revenue collection.

The dominant view in research and practice of tax administration is that tax compliance is largely a function of taxpayers' rational pursuits of their self- interests. From this perspective, taxes are costs that taxpayers try to avoid or reduce. Consequently, taxpayers are likely to evade taxes unless tough measures are taken that render tax evasion an unattractive option. Therefore it is assumed deterrence is a

means of generating compliance (Allingham and Sandmo, 1972, Andreoni, Erard and Feinstein, 1998).

According to Andreoni *et al,* (1998), the problem of tax noncompliance is as old as taxes themselves. Explaining the patterns of noncompliance and finding ways of tackling the vice is of great concern among many nations in the world. The economics of tax compliance can be approached from different perspectives: it can be viewed as a problem of public finance, organizational design, labor supply, law enforcement or ethics or a combination of these. As a problem of law enforcement, questions about the deterrent effects on tax enforcement associated with penalties and the probability of detection are central both to tax compliance and law enforcement.

Tax enforcement measures are measures used for collection and recovery of tax-related liabilities and other amounts. These measures involve a sequence of related or unrelated activities on those taxpayers who knowingly evade tax and also extend to those who might not be aware on their tax liability. Little effort has been expensed to determine non-compliance in VAT evasion and how enforcement impacts on its revenue. We therefore undertake to focus on determining the relationship between these two phenomena and contribute to the already available literature in research.

1.1.1 Enforcement Measures

The main idea behind the economic theory of compliance is that taxpayers will not pay taxes but for the fear of detection and punishment, (Alm, 1999). To enhance tax compliance, governments around the world have devised ways to increase tax revenue. According to Jantscher (1990), these include a range of related activities such as taxpayer identification and registration, taxpayer service and education, control of filing and payments, refunds, inspection and enforcement.

Tax enforcement measures find their basis on the economic theory model proposed by Allingham and Sandmo, (1972). In their paper, Allingham and Sandmo model tax compliance behavior as a utility maximization decision where a taxpayer will consider the benefit of tax evasion against the probability of getting caught evading (paying the correct taxes plus interest and penalties).

Enforcement measures vary with their level of effectiveness and they include audits, imposition of penalties and fines and legal or criminal sanctions. Tax audit is one of the most effective policies to protect tax evasion behavior. The level of audit can be determined by two elements: one is how many taxpayers are selected for audit and the second is how much intensive the audit is. The first element is easily measured by the number of audited taxpayers divided by the total number of taxpayers. The second element is difficult to measure and is commonly measured by the first element to indicate the level of tax audit for practical comparison (Hyun, 2005).

The imposition of fines as an enforcement measure will depend on how the taxpayers view them. In an antagonistic climate, fines can be a part of the game of "Cops" and "robbers" while in a synergistic climate; they can be seen as retribution against a behavior that harms the community (Nicoleta, 2011). The administration of penalties on non-compliant taxpayers is an enforcement measure towards daunting tax evasion. Penalties are imposed differently by different tax authorities across the world. Hyun, (2005) observed that penalty rate on taxpayers that had an intention to evade tax are higher than those of unintentional evaders.

Criminal sanctions have also been studied as deterrence measures against non-compliance. Economics model of crime perspective in tax evasion adopts heavily from criminologist Gary S Becker, (1968) economics of crime model. Becker

observed that tax evasion which is synonymous with tax compliance is a top white-collar crime (ACFE, 2010) and thus this model is appropriate. Becker, (1968) explained criminal actions from a rational utility maximizing decision-making process where the criminal weighs the costs and benefits before deciding to commit a crime.

Studies on enforcement strategy as a deterrence measure against non-compliance have had mixed results. For example, threatening taxpayers in an experiment with cross examination of their upcoming returns increased tax compliance just for low and middle income taxpayers, but decreased it for high income taxpayers, while other experiments report that imprecise information increases compliance, (Slemrod, Blumenthal and Christian, 2001).A review by Fischer, Wartick and Mirk, (1992) indicates that audit probabilities also deter tax evasion and augment tax revenue. However, their review summarizes inconsistent finding on audit probabilities. The probability that a taxpayer will be audited on filing their returns has an effect on their compliance.

1.1.2 Value Added Tax Revenue

By mid-2006, around 140 countries had already implemented VAT. The widespread use of VAT is partly due to its perceived efficiency and effectiveness in raising tax revenues compared to other indirect taxes. In 1999-2000, the average VAT collected in countries that have VAT was over 20% of total tax revenue (Bird and Grendron, 2007).

According to Ebrill, *et al,* (2001), VAT has become a key source of government revenue. About 4 billion people, 70 percent of the world's population, now live in countries with a VAT, and it raises about $18 trillion in tax revenue—roughly one-quarter of all government revenue. Much of the spread of the VAT, moreover, has

taken place over the last 20 years. From having been largely the preserve of more developed countries in Europe and Latin America, it has become a pivotal component of the tax systems of both developing and transition economies.

VAT is a tax on consumption which is charged at all stages of production, with the provision of a mechanism enabling firms to offset the tax they have paid on their own purchases of goods and services against the tax they charge on their sale of goods and services. Taxpayers registered for VAT have many tax obligations clustered into; registration in the system, timely filing and lodgment of requisite taxation information, accurate and complete reporting of information and timely payment of VAT (Organisation for Economic Co-operation and Development, 2004).

VAT in Kenya has over the years been underperforming compared to other taxes. This tax has from fiscal year 2003/04 been stagnant contributing an average of 26% to the total government revenue (Statistical Annexe to the Budget Speech for Financial year 2010/11 & 2011/12). The trend has been recurring and has contributed to the shortfalls in total tax collections by KRA. Many reforms have been carried out on VAT which has led to numerous amendments in the VAT legislation. Despite this, the National Treasury indicates that after two decades of reforms, VAT structure has become complex, inefficient and unproductive, contrary to some of the reasons why Kenya adopted it in the first place (Director of Economic Affairs, 2012).

The revenue produced by VAT depends on three broad sets of factors: the rules describing rates, bases, threshold and other structural features of tax; the scale of taxable activities (the amount of final expenditure, for instance, on items taxable at standard rate); and the degree to which the rules are complied with, (Ebrill et al, 2001). The interactions between these factors are important. Tax rates, for instance,

are typically set in light of tax bases and revenue requirements. The ease of enforcement will depend on the formal structure of the tax: multiple rates, for example, may lead to the misclassification of items, and a high standard rate may encourage evasion.

Noncompliance in VAT is not only a problem in Kenya. It is clear from the few studies that have been published that VAT evasion is widespread and involves significant revenue losses, though the extent varies considerably across countries. Agha and Haughton (1996), summarizes the findings of five countries from five countries in Europe and two in Asia: their figures suggest that revenue losses vary from a low 3% (France, United Kingdom) to a high of 40% (Italy). These figures can go even higher in the sub-Saharan Africa, given that there has been a slow pace in socio-political development.

1.1.4 Enforcement Measures and Value Added Tax Revenue

An important property of the tax system is to generate automatic growth in fiscal revenues over time without necessarily resorting to discretionary policy or inflationary financing (Moyi and Ronge, 2006). The key claim made by advocates of the VAT is that it is a particularly effective way of raising tax revenue. Cnossen (1990) for example, argues that 'purely from a revenue point of view, VAT is probably the best tax ever invented'. Advocates have also long recognized, of course, that the VAT, like any other tax, is vulnerable to evasion and fraud, but stress distinctive features of the VAT that may make it less vulnerable than other forms of taxation (Keen & Smith, 2007).

Over the last few years, however, there has been a marked increase in concern with losses of VAT revenue through evasion and fraud. For example, Germany's current

VAT revenue has recently been decreasing in spite of the recent growth in GDP. While many causes, such as changes in the legal framework and increased accounts of business failure have been offered to explain this fact, there is significant reason to believe that tax evasion has been the most detrimental factor contributing to VAT revenue losses (Dziadkowski, 2002).The European Commission (2004), for example, reports that losses for fraud- most famously, 'carousel fraud; - have recently amounted to 10 per cent of the net VAT receipts in some member states. Tax evasion generates billions of dollars of losses in government revenue and creates large distortions, especially in developing countries. The compliance gap in VAT has not improved since the replacement of sales tax with VAT.

Tax evasion is affected among other things by enforcement policies. Such policies vary widely across countries. According to OECD (2009), the Australian Taxation Office (ATO) audits 8% of VAT registrants each year, compared to 20% for Her Majesty's Revenue and Custom (HMRC) in the United Kingdom. Also, maximum sanctions for fraudulent reports differ significantly between these two countries: penalties may reach 50% of the amount of evaded tax in Australia, against 100% in the United Kingdom. Although less public data are available, there is also evidence that tax enforcement varies across economic sectors within a given country. According to the French Court of Audit (2010), law, finance, insurance, and health services firms were almost never audited in the Rhône-Alpes-Bourgogne region between 2003 and 2007.

VAT enforcement measures are imbued in the economic models that have deterrence effects on VAT non-compliance which in effect raises VAT revenue. The economic models predict that higher penalties and audit probabilities should discourage non-compliance. Though both have a deterrence effect, their degree of impact differs with

higher audit probabilities probably having more impact than higher penalties (Andreoni *et al*, 1998; Hessing, Elffers, Robben and Webley, 1992). The results of several surveys have indicated that self-reported non-compliers are less likely than compliers to believe that such acts would result in apprehension and punishment (Hessing, Elffers & Weigel, 1988).

There has been a considerable amount of research into tax compliance over the last 25 years (Andreoni *al*, 1998). Many new models of the compliance process have been devised and there has been a wide range of empirical studies. However, nearly all of these studies have focused on personal income tax compliance: business tax in general and VAT compliance has received very little attention (Murray, 1995).

1.1.4 Firms in the Large Corporate Taxpayer Category in Kenya

In most developing countries, the majority of VAT collected is from imports with the remainder collected from a few large taxpayers which reflects difficulties with compliance and enforcement experienced in developing countries (Bird, 2005).In Kenya, firms in the Large Corporate Taxpayer sector or Large Taxpayer's Office - LTO are all firms whose threshold in terms of turnover is above KES. 1Billion annually. LTO was formed as an operations unit in 1998 to provide a one stop shop in the administration of Income Tax and VAT matters affecting large taxpayers. It became a fully-fledged department headed by a Commissioner in 2006 with the sole purpose of administering domestic taxes matters affecting large taxpayers. Firms in the large taxpayer category are of great significance in tax collection as they contribute to more than 50% of the total tax revenues yearly (KRA Website).

Companies in the large taxpayer category have several characteristics that make them complex. According to OECD (2009), these firms are characterized by multiple

operating entities, diverse business interest, high volume transactions, large number of employees, international trade dealings, unique industry characteristics, widely spread in geographical terms, complex accounting principles and complicated policies and strategies to minimize tax liabilities. The complexities in large firms make it difficult for the tax agencies to fully understand their operations. These firms employ abusive and aggressive tax planning practices that represent a significant compliance challenge and remain a priority.

Firms in this category are critical in VAT revenue collections. An important aspect is that these firms are heavy consumers of goods and services that are vatable and are usually supplied by taxpayers in the other categories i.e. small and medium taxpayers. There is a general belief that firms in large taxpayer unit have high levels of compliance as they employ professionals and engage high end advisers on tax matters. However, OECD (2009) reports that there is a high tendency for tax malpractices involving fraud and evasion. Firms in this category are multinational companies that engage in international business dealings with transfer pricing implications that are complex. Noncompliance among firms in the large taxpayer category in Kenya cannot be underestimated. A good example is the introduction of withholding VAT (WHVAT) by KRA in which firms in large taxpayer category were appointed by the Commissioner of Domestic Taxes as withholding agents to withhold and remit VAT from their suppliers and enhance VAT revenue. (KRA website). WHVAT was later scrapped owing to among other reasons, the fact that not all VAT amount withheld was remitted to KRA's account at the Central Bank of Kenya (CBK) which adversely affected the overall VAT revenue performance.

This called for KRA to be aggressive in employing enforcement measures to deter VAT evasion and other noncompliance issues. VAT audits on these taxpayers have

proved essential in increasing their level of compliance with VAT law and raising a considerable amount of concealed revenue. Furthermore, in the course of conducting audits to big firms, small and medium taxpayers, who are noncompliant are also apprehended and forwarded to their respective stations for follow up.

When unpaid VAT is discovered, these firms are compelled by law to pay all the outstanding VAT plus a fine not exceeding one million shillings or an imprisonment for a term not exceeding three years or both (VAT, 2013). There are several cases where KRA has sued some large taxpayers in courts of law. This is as a result of VAT and other tax evasion by these firms. Where an out of court agreement is not reached, through tribunal, they end up being sued for fraud and/or evasion and the companies end up being compelled to pay all the outstanding amount, penalties and fines to the Authority.

1.2 Research Problem

The goal of tax administration around the world is to raise the prevailing levels of voluntary compliance significantly and permanently (Macharia, 2012). However, tax evasion and malpractices engaged by taxpayers impairs the taxation's macro-economic objectives thus creating a gulf between actual and potential government tax revenue raising many issues which need urgent attention and solutions..

No government can announce a tax system and then rely on taxpayer's sense of duty to remit what is owed. Some dutiful people will undoubtedly pay what they owe, but many others will not. Over time, the ranks of the dutiful people will shrink. Paying taxes must be made a legal responsibility of citizens with penalties attendant on noncompliance. But even in the face of those penalties, tax evasion exists and always has (Slemrod, 2007). Most studies that have been carried out have concentrated on

personal income tax compliance (Webley et al, 2002). This is surprising given the economic and social importance of VAT. VAT has been introduced in a large number of countries – the most recent one being China and those countries in Central and Eastern Europe applying for membership of the EU (Cnossen, 1998). It is difficult to get an accurate picture, but it is clear from the few studies that have been published that VAT evasion is widespread and involves significant revenue losses, though the extent varies across countries (Webley et al, 2002). Aga and Haughton (1996) summarizes the findings from five countries in Europe and two in Asia: their figures suggest that revenue losses vary from a low 3% (France, United Kingdom) to a high of 40% (Italy). Even the low figures represent a huge sum of money (3 billion dollars for France) and a very high proportion of firms involved in some non-compliance. Duverne (1990), for instance, reports that 66% of French VAT taxpayers audited had understated the value of taxable sales (a quarter of them fraudulently) and 40% had overstated the value of taxable inputs. Similarly, a study of Dutch businesses found that 34% of firms had evaded VAT (Cnossen, 1981). Thus, due to the meager performance, the performance of VAT is under serious scrutiny to establish the reasons behind its slow response.

In Kenya, the bulk of revenue collection; about 50% are collected from firms in the in large taxpayer category. Taxpayers in this category have been clustered into sectors according to the nature of business activities undertaken. The total revenue collected by KRA in the fiscal year ending June 2014 amounted to about KES 899.5 million against a target of KES. 963.8Million indicating a 93% performance. This has been detrimental on the overall performance on the mandate of KRA which in turn has resulted to a lot of pressure on the tax agency especially with the expanded budgetary targets of KES. 1.8Trillion.The trend of VAT revenue performance in LTO in the

recent past is worrying since it has not met the set targets. For instance, in fiscal year 2011/2012 actual collection was 54.91Billion against a corporate target of KES. 69.05Billion.Similarly, in 2013/2013 actual collections in VAT by LTO amounted to KES. 55.99Billion against a corporate target of 74.2B. In the financial year that ended in June 2014, VAT total corrections grew by only 0.65 per cent compared to other taxes that expanded by double digits. In the same fiscal year, treasury indicated that there would be increased VAT audits for 50 largest taxpayers along suspected VAT evasion by these firms (Irungu, 2013).

According to Macharia (2014), tax evasion is a great contributor to low tax revenues. Macharia observes that tax evasion in Kenya by some has led to tax evasion by others thus largely impacting on the distribution of tax burden as well as public resources leading to increase in taxes and revenue loss which may in the long run grind the functioning of the public sector to a halt. Nyaga, (2014), in her study on the relationship between tax compliance, enforcement and taxpayer services found a positive relationship on audit rate, and a negative relationship on tax compliance and taxpayer services.

Studies of economic factors that affect tax compliance have been consistently inconclusive leaving researchers to state that the more important question is why people pay taxes and not why they evade them. (Slemrod, 1992; Alm et al,. 1992). Research has found that much of the empirical studies have loose connection to theory. Several studies have been carried out on enforcement measures on tax compliance. However, these studies focused on income taxes and very few have touched on VAT (Webley *et al*, 2002). The concentration of both economic and non-economic factors on personal income taxes has made VAT appear an inferior tax system which is not true. Furthermore, research conducted on tax compliance has not

been keen to know the direct business view on enforcement measures on VAT compliance in big businesses.

Several studies have been carried out on tax compliance in Kenya. These studies have majorly been on individual taxpayers or small and medium enterprises (SMEs). None has focused on the effect of enforcement measures on VAT revenue for firms in the large taxpayer category in Kenya. Chege (2010)did a research on the effect of using electronic tax registers on VAT compliance on classified hotels in Nairobi and found that there were increased levels of VAT declaration following the introduction of ETRs. Nyaga (2014) conducted a research seeking to know the relationship between tax compliance, enforcement and taxpayer services in Kenya. Her studies focused on the effect enforcement measures have on individual income taxes. The study found that audit and penalties have a positive relationship with tax compliance; taxpayer service and criminal sanctions have a negative relationship with tax compliance. There exists a gap in the research studies done as none has contemplated on how enforcement measures affects VAT revenue. This study therefore sought to find out the effect of enforcement measures on VAT revenue for firms in the large corporate category in Kenya. The important question in this study is. Do enforcement measures affect Value Added Tax revenue (VAT)?

1.3 Research Objective

The main objective of this research is to determine the effect of enforcement measures of audit, penalties, and criminal sanctions on VAT revenue.

1.4 Value of the Study

Research on VAT compliance and its contribution to VAT revenue has not received adequate attention universally (Tanzi and Shlome, 1993) and in the developing world, it remains unavailable (Andreoni et al., 1998).This has even been worse on compliance researches on VAT. Many of the studies done have been majorly on direct taxes and little has been on VAT (Webley et al., 2002). This research will contribute to the existing scholarly work on VAT compliance in the developing world as Kenya is a developing nation.

The inadequacy of VAT to meet the expected outcome has been a headache to KRA. Reforms have been made on VAT under TR&MP in an attempt to raise VAT revenues, but the response has been below expectations. The study will be beneficial to tax administrators (KRA) in knowing what measures contribute to an increased compliance on VAT so that resources can be directed there to net more taxpayers to be compliant thus raising tax revenue collected. The study will also be useful to policy makers at the treasury and the legislature. The findings will enable them weigh the effective means by which compliance is enhanced and this will enable them know how tax administration can be empowered to increase VAT compliance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a literature review on prior studies that have been done on enforcement measures that are an integral part of tax compliance. The chapter also reviews some empirical studies done globally and locally on effect enforcement measures on VAT revenue. The chapter ends with a summary of the literature review.

2.2 Theoretical Review

This study borrows from the existing research of tax compliance measures. It was influenced by the following two theories put forward by researchers on enforcement measures on tax.

2.2.1 Economic Utility/Deterrence Theory

The contemporary revival of the economic analysis of crime began in 1968 with Becker's' classic article on crime and punishment. While Becker mentioned tax evasion as an area of application for his general model, Allingham and Sandmo (1972), provided the analysis. Generally, this approach treats noncompliance as a rational individual decision based upon probabilities of detection, conviction and levels of punishment.

According to Allingham and Sandmo (1972), tax compliance is an expected utility (EU) maximizing decision where the taxpayer takes into account the tax rate, probability of audit and the penalty in determining the declared income. The taxpayer's actual income is exogenously given and known by the taxpayer but not the Internal Revenue Service-IRS. A constant proportional tax is applied to reported

income, the amount of which is chosen by the taxpayer. With some exogenous and constant probability, the taxpayer is audited , if he or she is discovered to be underreporting income, a penalty proportional to the amount of undeclared income, at a rate higher than the proportional tax rate, must be paid. The taxpayer chooses a level of reported income so as to maximize his or her expected utility of net wealth. Optimal tax evasion depends on the chance of getting caught and penalized, the size of the penalty for evasion and the individual's degree of risk aversion.

Yitzhaki (1974) pointed out that if the penalty (and any related non pecuniary costs) for discovered evasion is proportional to the tax understated rather than (Allingham and Sandmo assumed, the income understated), then the tax rate has no effect on the terms of the tax evasion gamble. As the rate rises, the cost of a detected understatement of taxes rises in the exact proportion to the reward from a successful understatement of taxes, so the reward-to-risk ratio is unchanged. In this situation, a higher tax rate has only an income effect and, for example, if a taxpayer's level of (absolute) risk aversion increases as after-tax income falls, a higher tax rate will decrease tax evasion.

Many years of subsequent analysis has extended this model in a number of dimensions, including allowing an endogenous probability of detection, analyzing evasion jointly with the labour supply decision (thus directly addressing the shadow economy), incorporating the sources of uncertainty other than the chance of audit, and addressing general equilibrium considerations (Slemrod, 2007). This economics-of-crime approach gives the sensible result that compliance depends upon enforcement, as represented by the audit and penalty rates. Indeed, it is straightforward to show

with comparative statics analysis that declared income increases with an increase either in the probability of detection or in the penalty rate (Alm, 2013).

This theory incorporates enforcement measures in determining tax compliance levels. This study borrows heavily from the A-S model in that it seeks to establish the relationship tax enforcement measures have on VAT revenue. The theory observes a taxpayer weighs the cost of being caught evading tax versus the benefit of going unnoticed. If the cost of being caught is high, then it will be beneficial for the taxpayer to just comply with the tax law and this will have a positive effect on tax revenue.

2.2.2 Prospect Theory of Tax Evasion

This theory describes the way people choose between probabilistic alternatives that involve risk. Under the prospect theory, the carriers of utility are gains and losses relative to some reference point (Dhami & al-Nowaihi, 2006). An important application of prospect theory is to the equity- premium puzzle in finance which is similar in spirit to the tax evasion puzzle in that both can be formulated in terms of a portfolio choice problem.

Alm, Jackson and McKee (1992), suggest that one possible explanation for why people pay taxes might potentially be based on non-linear transformation of probabilities to overweigh the probability of a tax audit, which provides for an obvious deterrent to tax evasion activity. Restricted prospect theory has been used in "advance tax payments" in an attempt to deter tax evasion. Where advance tax payments exceeds actual tax liability, in which case the taxpayer correctly reports income, the taxpayer gets a refund, a gain. Therefore, the taxpayer's utility function is concave to gains. On the other hand, if the advance payment were lower than the

actual tax liabilities, the taxpayer's utility function would be convex for losses and might be more willing to take a gamble of evading taxes (Yaniv, 1999; Elffers and Hessing, 1997).

2.3 Determinants of Value Added Tax Revenue

The adoption of a VAT is often seen as an opportunity in many developing countries to modernize tax administration which may reflect the influence of international financial organizations (such as the IMF and the World Bank) in the decision to introduce VAT. Many developing countries, however, find the vat more difficult to administer than initially thought and problems with administration and enforcement often undermine the effectiveness of the VAT (Bernardi, Gandullia and Fumagalli, 2005).

Enforcement of laid down deterrence measures on VAT noncompliance theoretically contribute to increased VAT revenues. Earlier studies show that taxpayers are utility maximizers who possessed actual knowledge of penalty and detection rates. They advocated that increasing the penalty rate and/or the probability of detection was a deterrent and led to greater income declaration (Allingham and Sandmo, 1972).

2.3.1 Value Added Tax Rate

According to Bogetic and Hassan, (1993), the most important determinant of VAT revenue is the VAT rate. The VAT rate determines to what extent tax is to be levied on taxable goods and services. A too low rate will bring minimal VAT revenues. There is positive correlation between tax rates and tax revenues (Gillis, Shoup and Sicat, 1990).

The estimated VAT rate that will generate positive revenue, which can be interpreted as the minimum rate from the revenue perspective, is close to 2 percent, (Bogetic & Hassan, 1993).Their study found that the RATE coefficient was strongly significant and, in the linear model, explained 71 percent of the variation in VAT revenues. In the United Kingdom, Adam and Roantree, (2015), indicated that the simplest way for the government to raise a large amount of additional revenue would be to increase the rates of one of the three taxes that account for most of its revenue, i.e. income tax, national insurance contribution and the VAT. Their study found out that a 1 per cent point increase in the main VAT rate would raise $ 5.2 billion additional revenue.

Gillis*et.al,* (1990), in their survey of the VAT lessons, noted that VAT has developed a worldwide reputation as a governments "money machine", as few other single tax instruments can mobilize as large revenue as a well designed and implemented VAT. The experiences of the 49countries showed that, over the range of existing rates, with few exceptions, VAT revenue rises with the rate. Their study found that the average rate is 14.4%, and it realizes a share of 5.1% of the GDP, implying the average revenue productivity ratio of 35% of GDP. This means that raising the tax rate one percentage point would on the average increase the share of revenues in GDP by 0.35%. The average rate of revenue productivity in countries with several rates is 0.35%, somewhat lower than for countries which have a single rate (0.37%). It follows that using several rates would not generate larger revenues than applying one rate.

Multiple rate structure is inherently complex, but yet, many argue for it on both efficiency and equity grounds. The efficiency argument hinges on Ramsey rule applied to consumption taxation (Le, 2003). The rule specifies that to minimize

deadweight loss, tax rate on a good should be set inversely proportional to the good's own demand elasticity. It implies that the rates should be differentiated across different groups of goods and services of various demand elasticities. On the other hand, supporters of a multiple rate structure on the equity ground would argue that tax rate differentiation is needed to mitigate the regressively of a tax: lower rates must be applied to the goods and services consumed primarily by the poor. In practice, however, a multiple rate structure poses a great challenge to the tax compliance and administration (Asirigwa, 2011). A single VAT rate is usually viewed as simple during the computation of payable VAT. The general model will indicate that a growth of revenues from the VAT occurs when the rate is raised and the coverage of the tax base is broadened, while differentiation of the rates causes a rise of costs and thereby a negative impact on revenue (Kuliš & Miljenović 1997).

2.3.2 Value Added Tax Base

The VAT base is given by the legal definition of goods and services that are rated for VAT payments. The VAT base will differ from country to country and is proxied by the proportion of consumer spending that is zero rated and VAT exempted as a proportion of GDP (Kent & Williams, 2000). The higher the proportion of consumer spending that is zero rated and VAT exempted, the lower the VAT base.

The comprehensive VAT is typically levied on a broad base which includes all goods and services. However, countries vary in their coverage of the base, particularly with regard to the treatment of services. The negative impact of extensive exemptions on the size of the base can be quite dramatic. Kay and Davis (1990) estimate, on the basis of a survey of 32countries, that the complete exemption of all services excludes from the VAT base between 45 to 78 percent of a country's GDP. This, in turn,

increases the pressure on the fiscal authorities to use higher rate to mobilize target VAT revenue from a smaller base. Also, it is evident that some countries that use almost identical rates experience very different revenue performance. One source of different performances is often the size or the coverage of the base The underlying hypothesis is that the wider the base, the smaller is the number of goods and services exempted, and the larger the VAT revenue-to-GDP ratio (Bogetic & Hassan, 1993).

2.3. Contribution of Imports to VAT

Importation of goods and services in an economy depends on the consumption level of the   particular country. The higher the consumption, the higher the imports. Due to the fact that VAT is a consumption tax, primarily VAT income depends on the consumption level in the country. Importation increases with consumption and it reduces the demand for domestic goods. An increase in imports results to higher VAT income (Hybka, 2009).

The significant role for the degree of trade in an economy in explaining VAT yields is consistent with a key empirical feature of the VAT: revenue collected on imports commonly accounts for a large proportion of total revenues. In about two-thirds of developing and transitional economies, more than half of all VAT revenue is collected on Imports − an average of 55 per cent.VAT collections on imports are generally a crucial part of ensuring effective collection of tax throughout the chain of production. By the same token, getting collection right at that stage can go a long way to securing the success of the VAT overall (Ebrill *et al*, 2001).

2.4 Empirical Studies

In this section, the study reviewed existing studies both local and international on the effect of enforcement measures on VAT revenue in Kenya.

In order to meet their vast budgets, governments around the world have devised ways of employing various measures to reap more on taxes. As it would be, some taxpayers are also way ahead to beat the systems so as to remain non-compliant. This has led the tax agencies to employ enforcement measures of audit rate, penalties, audit probabilities and criminal sanctions to net in non-compliant taxpayers. In an attempt to investigate the reasons for taxpayer non-compliance, Becker, Bucher and Sleekings (1981), used tax evasion game in which participants were given a monthly income and punishment parameters. Based on these, taxpayers were requested to make their tax declaration. The major finding of their study were that tax evasion increased with tax rate and that keeping the net gain from evasion constant, evasion fell as the fine/penalty was increased.

Dublin and Wilde (1988) conducted an empirical analysis of federal tax auditing and compliance in USA. The study had an objective of establishing the relationship between tax audits and compliance from IRS tax returns made in 1969. Data was analyzed by Ordinary Least Square regression. Among other variables that contributed to increased tax compliance, which in turn enhanced tax revenues, Dublin and Wilde found that there was a strong deterrence effect on non-compliance. They concluded that IRS was effectively right to direct its resources to audit conductions to enhance tax revenue.

A study conducted by Frey and Feld (2002), evaluated deterrence and morale on taxation in Switzerland. In their empirical analysis, they used cross section time series data from 26 cantons over the period 1975-1995. Their enforcement technique was represented by the authoritarian procedure of the tax agency in which standard penalties and audit rates were increased. The results surprisingly showed that the

probability of detection through audit was statistically significant (at the 5% level) and had a theoretically unexpected positive sign. This suggested that a higher probability of being caught through audit raised (rather than lowered) tax evasion which affected tax revenue. However, an increase in standard penalty lowered tax evasion in a statistically significant way (1%) which corresponds to the theoretical expectations. They observed that enforcement measures are not the sole contributors to increased compliance and how taxpayers view treatment from tax agency also contributed to compliance.

In a study titled 'Tax Knowledge and Tax Compliance determinants in Self-Assessment System in Malaysia", Mohd (2010), concluded that in the self-assessment system in Malaysia, tax knowledge has a significant impact on tax compliance and the level of tax knowledge varies among respondents. Males, Malaysian, residents of Eastern region, high income earners and taxpayers who have attended tax courses appear to be the most knowledgeable taxpayer groups. The results also indicate that tax compliance was influenced by probability of being audited, perception of government spending, penalties, personal financial constraints, and referent group. These results were validated through a multiple method of questionnaires (direct and hypothetical questions) and analysis (stepwise multiple regressions and multiple regressions).

Bergman (2003) investigated tax compliance behavior in Argentina using two approaches; the measures to enhance commercial taxpayers and extensive campaigns and audits which will increase the probability of detection among taxpayers. The results suggested that as the number of audits and the probability of detection increased, taxpayers were encouraged to comply with tax laws and accurately report

their income which had a positive impact on tax revenue. This suggests that unintentional evasion may occur rather than intentional evasion. He also claimed that the lack of audits and investigations implemented by tax authorities in the 1980s in Argentina had driven taxpayers to behave 'recklessly'. Moreover, as taxpayers were aware that they would not be detected due to lack of investigations, they incorporated more complex tax evasion strategies and less traceable documentations so that they could pay less tax. Findings by Bergman are consistent with the theoretical proposition that the fear of detection influences the level of compliance behavior, suggesting that the evaders take precautionary measures when the perceived risk of detection is high. Findings from Bergman have also evidenced that probability of being detected plays a significant role in inducing compliance behavior.

Slemrod, Blumenthal and Christian (2001), conducted a research on taxpayers response to an increased audit probability – evidence from controlled experiment in Minnesota. They selected a group of 1724 taxpayers and informed them through letters that the tax returns that they were about to file would be closely examined and compared this to a control group that did not receive the letter. They observed that the low and middle income taxpayers in the treatment group on average increased tax payments compared to the previous year.

In an experiment study, Feld and Tyran (2012) found that the tax compliance is higher on average in endogenous penalty treatment in which subjects are allowed to approve or reject the proposal of a penalty as compared to an exogenous penalty treatment where penalty is imposed by the experimenter. The main explanation why people show higher tax morale if they are allowed to vote on a penalty is legitimacy. Compliance rates are higher if the penalty is accepted than in the case it is rejected.

Naibei, Momanyi and Oginda (2012), in their study on the relationship between income size, inspection and VAT compliance on private firms in Kenya sampled 233 registered firms where questionnaires were administered to the respondents. Data was analyzed through correlation analysis. The results showed that there was a higher VAT compliance level on those firms which had undergone a tax audit by KRA. 58% of the businessmen agreed that tax audits acted as deterrence on tax evasion. This in effect had a positive effect on the VAT revenues collected by KRA.

In his study on the factors affecting tax compliance by Real Estate developers in Nakuru town, Osebe, (2013) reveals that tax compliance cost is a contributory factor to tax compliance. From the study findings, there is enough indication that tax compliance cost is associated with high levels of tax compliance thereby increasing tax revenues. Taxpayers do a cost-benefit analysis of the cost of being caught through audits and the probability of being penalized, together with the possibility of criminal sanctions and where the magnitude is high; they end up following tax law and in effect comply. The study also provides some preliminary evidence that fines and penalties play a vital role in improving tax revenue.

Nyaga (2014), in her study on tax compliance, enforcement and taxpayer service in Kenya purposed to explore the relationship between enforcement policies and taxpayer service on tax compliance. The study used simple regression analysis of aggregate variables representing enforcement measures against audit, penalties, criminal sanctions and taxpayer service. A sample frame list of self-employed individual taxpayers was used for 2003 to 2012. Nyaga found that audit and penalty had a positive relationship with tax compliance and hence tax revenue and taxpayer service and criminal sanctions had a negative relationship. With the variability in

audit rate accounting for only 31% of the variability in tax compliance, she concluded that why Kenyans pay taxes remains an interesting question that required further research.

Mararia (2014), evaluated the effect of Integrated Tax Management System (ITMS) on tax compliance by the small and medium enterprises in Nairobi central district. The target population for the study comprised of 200 taxpayers out of which 100 taxpayers were picked as a representative sample. Data was analyzed by use of Statistical Package for Social Sciences. Although the study was mainly on ITMS effect on tax compliance, Mararia found that penalties and fines had a significant positive relationship with tax compliance. This resulted to an overall increase in collections as penalties and fined deterred tax evasion by taxpayers.

2.5 Summary of Literature Review

There has been a considerable amount of research which has been carried out on tax compliance (Andreoni, et al, 1998). Studies on the economic factors that affect tax compliance have been consistently inconclusive leaving researchers to state that the more important question is why people pay taxes and not why they evade them (Slemrod, 1992; Alm et al., 1992).According to Webley, *et al*, (2002), there are very minimal studies on VAT non-compliance. The main purpose for pushing for increased tax compliance through a reduction of tax evasion, helping taxpayers through taxpayer service and other mechanisms is to increase tax collections. The effects of audits, penalties and criminal sanctions vary sometimes even within the same context (Witte & Woodbury, 1985; Dubin & Wilde, 1988).

From the empirical studies, it is clear that tax evasion has been a problem to many governments and that tax enforcement has been a tool used by many tax agencies to

deter further non-compliance. However, most empirical studies have focused on personal income tax. There has not been much concentration on VAT which is an important tax. Taxpayers in different tax brackets behave differently on taxation matters. The few studies carried out on VAT have focused majorly on Small and Medium enterprises and the black market. It is therefore paramount to study how enforcement measures contribute to the revenue collection on VAT for firms in the large taxpayers' category.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology as the mode of achieving the purpose of the study. It specifically highlights the methods used in carrying out the study in an attempt to answer the research question. In addition, various methodological issues discussed include population, sample design, data collection, validity and reliability and data analysis.

3.2 Research Design

Research design used in this study is a causal study design that involves an investigation of what effects one variable has on the other among different variables, (Kothari, 2004). This study adopts both descriptive and explanatory designs. Causality in this study is most preferred because the study sought to investigate what effect enforcement measures have on VAT revenue in the Large Taxpayer Sector in Kenya.

3.3 Population

The target population refers to a group of individuals, objects or items from which samples are taken for measurement (Mugenda and Mugenda, 2003). The target population consists of 1052 firms in the large corporate taxpayers' category under LTO mandate as at June 2013. This group of taxpayers is chosen because, as discussed in chapter one, firms in LTO contribute to over 50% of the total tax collections by KRA. This would literally be taken to mean that the contribution made by these taxpayers in the Kenyan economy cannot go unnoticed.

3.4 Sample

A sample is a representation or subset of the total population to be studied since it is impossible to study the entire population. A sample of 106 firms from the large taxpayer category was considered in this study.

3.4.1 Sample Frame

Sampling is the process of selecting a subset of cases in order to draw the conclusion of the entire set. The sample frame was drawn from firms in all the seven sectors in LTO namely; Agriculture & Wholesalers, Oil, Transport and Services, Food & Other Manufacturers, Government and Construction, Banks and Insurance, Top 25 and Excise sector. A hundred and six (106) companies were selected as a sample for the study between 2008/09 to 2013/2014 fiscal years.

3.4.2 Sampling Technique

The sampling technique used was stratified and simple random sampling. The sample was obtained from companies in each category which have either been subjected to an audit; penalty or legal sanctions were selected from each sector. Every tenth firm of every sector was chosen to make a total of 106 companies, except for Top 25 where all the 25 companies were selected and 25 companies from excise sector.

3.5 Data Collection

The study used secondary data. Secondary data is information obtained from research articles, books, or casual interviews (Mugenda & Mugenda, 1999). This information was obtained from the monthly, quarterly and yearly reports of the audit, legal and debt sections of KRA and the KRA data base. The data collected covered a period of six years from 2008 to 2014.

3.6 Validity and Reliability

According to Kothari (2004), validity is the degree to which an instrument measures what it is supposed to measure. Validity was achieved by having objective data and pre-testing a sample of the information used.Reliability on the other hand refers to a measure of the degree to which research instruments yield consistent results (Mugenda & Mugenda, 2003). In this study reliability was achieved by selecting a sample and testing it for accuracy from database.

3.7 Data Analysis

To establish the level of tax compliance, an audit must have taken place (Andreoni et al., 1998). In this study; to establish the effect of enforcement measures on VAT revenue, we used aggregate data from audit records, penalty schedules and legal schedules. Data was analyzed using Statistical Package for Social Sciences (SPSS Version 20.0) program.

Both quantitative analysis and regression analysis were used as data analysis technique. The data collected was run through various models so as to clearly bring out the effect of enforcement measures i.e. audit rate, penalties and criminal sanctions on VAT revenue in taxpayers in LTO.

3.7.1 Analytical Model

A multi linear regression model was used to predict the effect of enforcement measures (audit rate, penalty and criminal sanctions) on the VAT revenue for firms in the large taxpayer category. The VAT revenue in the linear regression equation is the **Y** of the equation, i.e. the dependent variable while audit rate, penalties and criminal sanctions are the independent variables X_i. Other variables that have been identified to have an effect on VAT revenue which are the rate of VAT, the tax base, are control

variables that are not included in the equation. However, the contribution of imports to VAT revenue has been included in the estimated regression equation as below.

To answer the research question in chapter one, the estimated equation will take the following form;

$$Y = \alpha + \beta 1 X_1 + \beta 2 X_2 + \beta 3 X_3 + \beta 4 X_4 + \beta 5 X_5 + \beta 6 X_6 + \mathcal{E}$$

Where, **Y** is the VAT revenue which is the dependent variable. It is a proportion of the contribution of VAT revenue to the GDP.

$\boldsymbol{\alpha}$ is a constant or the y intercept,

$\mathbf{X_1}$ denotes the audit rate,

$\mathbf{X_2}$ represents penalties imposed on non-compliant firms,

$\mathbf{X_3}$ denotes criminal sanctions,

$\mathbf{X_4}$ represents the contribution of imports to VAT revenue

$\boldsymbol{\beta 1, \beta 2, \beta 3, \beta 4, \beta 5}$ **&** $\boldsymbol{\beta 6}$– are variable coefficients

$\boldsymbol{\mathcal{E}}$ is the error term.

The audit rate is represented by $\mathbf{X_1}$ which is an independent variable that will be measured as; the amount of VAT revenue collected from firms subjected to audit in the large taxpayer category per year divided by the total VAT revenue collected from firms in the large taxpayer category.

$$\text{Audit rate} = \frac{amount\ of\ VAT\ revenue\ collected\ from\ VAT\ audits}{total\ VAT\ revenue\ collected\ from\ firms\ in\ LTO}$$

Penalties imposed are independent variables on non-compliant taxpayer and are denoted by $\mathbf{X_2}$. The measure for this factor is adopted from the Witte and Woodbury, (1988) study, where penalties are measured by the number of firms with VAT related civil penalties divided by the total collections for the year.

$$\text{Penalties} = \frac{VAT\ revenue\ from\ civil\ penalties}{total\ VAT\ collected\ from\ LTO}$$

Criminal sanctions are represented by **X₃**. Under this variable, the total VAT revenue emanating from penalties imposed on firms investigated for VAT fraud per year is divided by the total VAT revenue collected from firms in the large taxpayer category. From 2010, KRA was allowed by the Attorney General, who is the defacto Director of Public Prosecutions, to install six of its officers, who are legal professionals as prosecutors in tax evasion cases. According to the authority, this arrangement has enabled more timely, effective and successful prosecutions. Furthermore, KRA"s prosecutors are in a position to apply the legislative framework, knowledge and other capacities for combating corruption and other crimes, to "register substantial wins in court cases.

Criminal sanctions =

$$\frac{VAT\ revenue\ from\ firms\ in\ the\ large\ taxpayer\ investigated\ for\ fraud}{total\ VAT\ revenue\ from\ firms\ in\ large\ taxpaye\ category}$$

The contribution of VAT on imports to the total VAT revenue collections is represented by **X₄**. This will be the total VAT amount received from imports relative to the VAT revenues expressed as a percentage per annum.

$$\text{VAT on imports} = \frac{VAT\ on\ total\ imports}{Total\ VAT\ collections}$$

VAT rate is a control variable that also affects the VAT revenue.. According to (Bogetic & Hassan 1993), rate is taken as a percent. Kenya started off with a standard rate of 17% but with 14 other rates, (the highest being 210%). Currently, there is a single standard rate of 16%. (See Appendix I). The VAT base is also another control

variable that has an effect on VAT revenue, which was not examined in this study. The base of the VAT depends on how the system of VAT is defined. Under the Kenyan law, VAT is consumption type, basically conforms to the destination principle. This type of system means that in principle the tax base consists of final sales of goods. Assuming a zero rate of the tax on exports, and gross investments on entrepreneurs, the theoretical tax base, which does not include VAT itself would be obtained from the GDP in market prices, adjusted for the value of the indirect taxes which the VAT is replacing by subtracting the value of visible exports, non–factor services, and gross investments, adding in the value of visible imports and non-factor services.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents the analysis of data that was collected, results and discussion of the findings. The chapter is divided into five sections, i.e. Descriptive statistics, correlation analysis, regression analysis and ends with a discussion on the findings. The study relied on secondary data for analysis. Ordinary Least Square (OLS) was used.

4.2 Descriptive Statistics

This section sought to provide a description of variables for the averages of the variables used in describing the relationship between variables .The results from the analysis are presented in the table shown below.

Table 4.1 Descriptive Statistics of Variables. Average VAT revenue from Enforcement Measures in Billions of Kenya Shillings

	N	Minimum	Maximum	Mean	Std Deviation	Variance
VAT Revenue	106	0.00745	0.0343	0.003182	.0566066	0.321
Audit rate	106	0.0115	0.0803	0.001727	.039837	5.457
Penalties	106	0.005	0.00745	0.00223564	.063700	9.712
Criminals sanctions	106	0.0033	0.513	0.0033564	.007026	0.022
Imports to VAT	106	0.0013	0.00513	0.00245062	.0022612	2.366
Valid N	106					

Source: Author, 2015

In the findings above, there are 106 observations which were used for this study for all the variables. The mean of the independent variable, VAT revenue was 0.003182. This was taken to be the total VAT revenue contribution to the GDP. The mean for dependent variables i.e. audit rate, penalties, criminal sanctions and the VAT on imports was 0.001727, 0.00223564, 0.0033564, and 0.0024506223 respectively.

4.3 Correlation Analysis

Pearson correlation was used to examine if there was correlation or degree of association for the variables   in the study.

Table 4.2 Correlation Analysis

	1	2	3	4	5
VAT revenue	1				
Audit rate	0.590	1			
Penalties	.839	.146	1		
Criminal sanctions	-.40	.317	.282	1	
VAT on imports	.614	.427	-.109	.211	1

Source: Author, 2015

*Correlation is significant at the 0.05 level (2-tailed)

From the correlation analysis above, there exists a correlation between variables. The findings show that a negative correlation exists between VAT revenue and criminal sanctions with a correlation coefficient of -0.40**.** The findings also show positive correlations between VAT revenue and Audit rate, penalties and VAT on imports of 0.590, 0.839 and 0.614 respectively. Therefore, all these three variables will positively increase VAT revenue. These findings illustrate the results obtained from correlation analysis for the sampled firms for the period of study at 0.05 level of significance.

4.4 Regression Analysis

Table 4.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0. 909[a]	.827	.753	.0730618

a. Predictors (Constant), Audit rate, penalties, Import to VAT revenue, criminal sanctions

Regression Analysis in table 4.3 shows that the coefficient of determination (R^2) equals 0.827. That is the Audit rate, penalties, criminal sanctions and the contribution of imports to VAT revenue explains 82.7% only of factors affecting VAT revenue, leaving 17.3 % unexplained

Table 4.4 ANOVA[b]

Model	Sum of squares	df	Mean square	F	significance
1					
Regression	0.179	5	0.60	11.161	0.0050[a]
Residual	0.037	100	0.005		
Total	0.216	105			

a. Predictors (Constant), Audit rate, penalties, Import to VAT revenue, criminal sanctions

b. Dependent variable: Contribution of VAT to revenue to GDP

ANOVA findings in table 4.4 show that there is a strong significant relationship between the predictor variables (Audit rate, penalties, criminal sanctions, contribution of Imports to VAT) and response variable VAT revenue. An F ratio is calculated which represents the variance between the groups, divided by the variance within the groups. A large ratio indicates that there is more variability between the groups (caused by the independent variable) than there is within each group, referred to as

the error term. From the above, the significance level of the model is 0.005 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance; p value is 0.0050 which is less than 0.05 significance level.

Table 4.5 Regression Coefficients

Coefficients[a]

Model	Unstandardized coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.995	0.421	-1.326	4.37	.002
Audit rate	0.344	0.070	-0.410	-4.936	.002
Penalties	0.026	0.023	1.045	-1.138	.293
Criminal Sanctions	-0.049	0.021		2.335	.052
Imports to VAT	1.23	0.030	1.245	1.569	.256

    a.   Predictors (Constant), Audit rate, penalties, Import to VAT revenue,

        criminal sanctions

These are the values for the regression equation for predicting the dependent variable from the independent variable. From the regression model:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$

The regression equation is presented as shown below.

$Y = 1.995 + 0.344 X_1 + 0.026 X_2 - 0.049 X_3 + 1.23 X_4 + 0.421$

A Constant of 1.995, shows that if the Audit rate, penalties, criminal sanctions and contribution of imports to VAT, are all held constant at zero, VAT revenue would be 1.995 Billion. The regression coefficient for Audit rate is 0.344. This means that the relationship between the Audit rate and VAT revenue is positive. This implies that an increase in Audit rate results to 34.4% increase in VAT revenue. The regression coefficient for penalties is 0.026 meaning that the relationship between penalties imposed on firms within the large taxpayer category and VAT revenue is positive.

This implies that an increase in penalties imposed on firms results to an increase VAT revenue by 2.6%. The regression coefficient for criminal sanctions ratio is -0.049. The relationship between criminal sanctions on fraudulent taxpayers and VAT revenue is negative. This implies that an increase in criminal sanctions and strict enforcement of criminal sanctions results to a decrease in total VAT revenue.

The regression coefficient for contribution of imports to VAT revenue is 1.23. The relationship between the contribution of imports to VAT and VAT revenue is positive implying that an increase in imports contributes to a great increase in VAT revenue collected.

4.5 Discussion of Findings

The purpose of this study was to determine the effect of enforcement measures employed by the Kenya's tax agency (KRA) on VAT revenue and the study focused on firms in the large taxpayer category as classified by the tax agency. Aggregate data relating to VAT revenue collected from employing techniques such as audits, imposing penalties and instituting legal sanctions for fraudulent taxpayers was regressed against VAT revenue collections as a measure of the GDP. There is a strong significant relationship between the predictor variables (Audit rate penalties, criminal sanctions, contribution of imports to VAT).

The enforcement measure of audit rate was, as expected, found to have a significant positive relationship with VAT revenue collected. This is in line with both the tax compliance theory and majority of prior studies on the variable. These findings are consistent with Keen and Mansour (2009) research that looked at the current challenges in revenue mobilization; Improving tax compliance. The research found a close relationship between audits as an enforcement strategy for tax compliance

measures and the amount of revenue for various revenue collecting bodies in different countries collect.

The relationship between penalty imposition and VAT revenue is positive and non-significant. Compared to prior studies the result is not unexpected. Prior studies have set forth conflicting relationships between penalties and VAT revenue. The most common result in these studies is the non-significance of the relationship. Nyaga (2014) found that penalty rate contributed to 4.2% of tax compliance and an F-statistic showed that it was non-significant. The result of the relationship between criminal sanctions and VAT revenue was as expected – negative and non-significant. The negative relationship is congruent with compliance theory, that punishment is not an effective way of deterring undesired behavior.

The study of Eissa and Jack (2009) also found no significant variations in the various tax compliance measures on VAT revenue for large and small firms in Kenya .They also found that penalties for non or under-payment of taxes are defined by law, and interest of 2 percent per month is charged on tax arrears, calculated starting from the date the tax was due. While it is standard practice to punish non-compliance starting on the date the tax was due, long delays between the submissions of a return and auditing tend to increase interest payments by those who are found to have underpaid. The relatively high (2 percent) monthly interest rate provides the KRA with little financial incentive to speed up auditing. They further identified a legislative source of inflexibility in the penalty system. In particular, penalties for non-payment of VAT, income tax, and customs and excise taxes were defined under three separate laws, which were difficult to coordinate and to adjust as changing circumstances require.

Eissa & Jack (2009) also found that KRA can increase the revenue by strictly enforcing the measures for compliance put in place such as increasing the number of audits and penalties. The study found that the relationship between criminal sanctions and VAT revenue is positive. This implies that an increase in criminal sanctions results to an increase in VAT revenue and vice versa. Aquino, *et. al.,* (2010) studied the tax compliance measures on small and large Philippines firms. Results indicated that strictly enforced criminal sanctions measures are associated with high VAT revenue. His study showed that high criminal sanctions are associated positively with the amount of revenue collected. This is different from the findings of this study where the study found that the relationship was negative. The relationship between the contributions of VAT on imports to VAT with VAT revenue is positive. This implies that an increase in contribution to VAT ratio results to an increase in VAT revenue vice versa.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings presented in chapter four according to the study objective. It is therefore the final chapter and therefore serves as a conclusion of the study. The chapter also has limitations encountered during the study, recommendations to policy makers and concludes with a suggestion for further research.

5.2 Summary

The study sought to investigate the effect of enforcement measures on Value Added Tax revenue for firms in the large corporate taxpayer category in Kenya. The period of study was six years between 2008 and 2014. A sample of 106 firms was selected from the population of all firms categorized as large taxpayers by KRA. Data used was obtained from the monthly, quarterly and yearly reports of the audit, legal and debt sections of KRA and the KRA data base. The study found that there exists a positive relationship between Audit rate and VAT revenue. The effect is medium and significant. The economic theory of tax compliance states that as the possibility of being detected cheating increases, there is an increase in the level of compliance. Therefore, the findings of this study are as expected and in line with theory and majority of prior studies. This implies that an increase in Audit rate results to increased VAT revenue. The large audit rate coefficient also means that tax audits are an effective enforcement strategy for ensuring compliance for the Kenyan tax authority. It is fitting with Andreoni et al., (1998) that 'a small increase in (the probability of) audit increases compliance by a good margin'. Governments can

increase their VAT revenue by increasing the Audit rate and strictly enforcing the Audit rate as a measure of tax compliance.

The study also found a positive relationship between penalties imposed on non-compliant taxpayers and VAT revenue. An earlier study done in the US by Witte and Woodbury, (1985) showed that, notices of penalties charged sent out to taxpayers by the data processing unit had a significant effect on tax compliance. If the data processing unit adopted this method concerning penalties, that is, sending out notices of penalties owed, it might greatly improve the effect of penalties on tax compliance. After all, penalties are a much cheaper enforcement measure and more far reaching. This would also counter the problem of penalties charged to unknowing taxpayers. This implies that an increase in imposition of penalties on errant taxpayers results to an increase in VAT revenue.

On criminal sanctions the study found that there exists a negative relationship between criminal sanctions and VAT revenue. This in turn implies that an in increase in criminal sanctions results to a decrease in the amount of VAT revenue. Legal proceedings therefore negatively affect VAT revenue. The higher the taxpayers are subjected to legal battles on fraudulent issues, the lower is the contribution in VAT collections. The theory of compliance behavior and criminal psychology both state that punishment does not help prevent undesirable behavior. Previous studies have also found that punishment of noncompliant taxpayers tends to erode tax morale – internal motivation to pay taxes.

The study found a positive relationship between contribution of imports to VAT and VAT revenue. An increase in level of imports to VAT Ratio results to an increase in the amount of VAT collected and vice versa. The study found that higher contribution

to VAT is associated with high VAT revenue .Therefore KRA should strictly apply these measures as a means of enforcing compliance for firms in the LTO in order to enhance the amount of VAT revenue collected.

5.3 Conclusion

Tax enforcement measures are a very important component of VAT revenue collection because they directly affect the amount of revenue a country collects within a certain period of time .Therefore steps should be taken to ensure strict enforcement of these measures as a means of attaining this goal. Ordinary Least Square (OLS) regression found that Audit rate is positively associated to the VAT revenue. The results show that KRA can improve their VAT collection performance by managing the enforcement of audits efficiently. Penalties too have positive relationship with VAT revenue. This means that more resources should move towards audits as it has the highest positive coefficient. More staff and strategies should go towards increasing the efficiency and effectiveness of VAT audits. Criminal sanctions on the other hand have a negative relationship with VAT revenue. The findings indicate that VAT revenue decreases with increasing in number of taxpayers investigated for fraud and prosecuted. Criminal sanctions are therefore non-significant in VAT revenue collections and the authority should not engage much in this. Although KRA faces challenges to this end of attaining these goals, it needs to put its powers to the stretch by ensuring strict observance of the measures that will result in a high amount of VAT revenue being collected.

The study therefore concludes that enforcement measures especially audit and imposition of penalties are an important area in the field of tax collection and administration. It therefore requires KRA to employ the most efficient enforcement

measures such as conducting audits and imposing penalties on non-compliant taxpayers in order to increase the VAT revenue collection.

5.4 Limitation of the Study

The study was limited to firms within the large taxpayer category most of which are located or have their head offices in Nairobi. These firms, as much as they are the biggest contributors of VAT revenue collection, the effect of enforcement measures should not be limited to these firms only. Actually, the effect of these measures should be on all the companies that have been registered for VAT. However, time was a limitation to study these effects on other taxpayers in other categories that include MTO and MST.

The study was limited to six years. The period of study was too short to observe lengthy changes in variables overtime. Some of changes could not be observed then. Period under review for the study was short and that could not allow extensive analysis of the relationship between audit rates, imposition of penalties and criminal sanctions to VAT revenue collections which also resulted to a limitation.

5.5 Recommendations

From the study findings, efficient tax enforcement measures results to improved VAT revenue by the KRA. From the findings, there exists a positive relationship between Audit rate and VAT revenue. The study recommends that the frequency of VAT audits by the tax agency be increased. This will ensure a wide coverage of firms that are audited. The contribution of audits will significantly increase total VAT collections. There is need for KRA to also strategize and implement efficient ways on how audits are conducted. This is because the research found that with increased level of audit, more VAT is collected. This means that more taxpayers will be covered in

the audit procedures and therefore resulting to increased levels of VAT compliance. The Kenya Revenue Authority should to that effect increase the number of staff carrying out audits. The staff should be effectively facilitated so that they can carry out these VAT audits efficiently.

On VAT penalties, there should be an active policy that penalizes errant taxpayers. In the current VAT Act, the common penalty is Kshs. 10,000. The authority should think of increasing the penalty amount so as to collect more revenue. VAT penalty should be graduated so that more errant taxpayers are penalized more.

5.6 Suggestions for Further Research

The study explains 60.9% only of VAT revenue on the firms in the large taxpayer category leaving 39.1 % unexplained. The 39.1% represents other variables that explain this study did not include. Little research has been done on enforcement measures on VAT revenue collections. The study therefore suggests that further research studies on the same area be done to determine variables that explain the 39.1%.

Similarly, since this study was done in large taxpayer firms, it is difficult to generalize the findings to other firms which are in MTO & MST. Studies should be done about the effect of the enforcement measures on those in other categories. Further, a longer period of time should be studied in order to get an extensive analysis on the relationship between enforcement measures and VAT revenue for firms in the large taxpayer category.

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APPENDICES

APPENDIX I: VAT RATES IN KENYA 1989-2006

Year	Number of VAT rates	Standard rate	Highest Rates
1989-90	15	17	210
1990-91	9	18	150
1991-92	8	18	100
1992-93	6	18	50
1993-94	4	18	40
1994-95	4	18	30
1995-96	4	15	25
1996-97	3	15	15
1997-98	3	17	17
1998-99	4	16	16
1999-00	4	15	15
2000-01	4	18	18
2001-02	4	18	18
2002-03	4	18	18
2003-04	3	16	16
2005-06	1	16	16

Source: KRA.

APPENDIX II: VAT REVENUE FROM ENFORCEMENT

MEASURES

COMPANY	VAT	AUDIT RATE	PENALTIES	CRIMINAL SANCTIONS	VAT ON IMPORTS
Central Glass	0.0168	.803	.035	.005	.513
Africa Oil Kenya	0.014	.0115	.0038	.035	.428
PIL	0.0186	.585	.008	.0038	.0033
Ashut Quality Products	0.0156	.149	.0185	.008	.0059
Red Sea Chemist	0.0158	.803	.003	.0185	.0065
Dorman's Ltd	0.0148	.0115	.00745	.003	.0172
Rupa Cotton Mills EPZ Ltd	0.0188	.149	.0046	.00745	.0033
Commercial Motor Spare Ltd	0.0168	.803	.0185	.0046	.0059
Chandaria Industries	0.0202	.0115	.003	.0185	.0065
East Africa Breweries	0.0118	.585	.00745	.003	.0172
Unga Group Ltd	0.0202	.149	.005	.00745	.433
Uniliver Kenya Ltd	0.0248	.803	.035	.005	.485
GM	0.015	.0115	.0038	.035	.513
Kenya Tea Packers	0.0104	.585	.008	.0038	.428
Delmonte	0.02	.149	.0185	.008	.0033
Reckitt Benkister East	0.084	.803	.0046	.0185	.513
Beta Health Care	0.0202	.0115	.0185	.003	.428
Nestle Kenya Ltd	0.0206	.149	.003	.00745	.0033
Crown Berger	0.0176	.803	.00745	.005	.0059
East African Cables	0.0164	.0115	.005	74.65	.0065
Equator Bottles Ltd	0.0192	.775	.035	28.73	.0172
Nairobi Bottlers Ltd	0.0334	.708	.0038	64.06	.0033
Coastal Bottlers Ltd	0.0332	.783	.008	62.07	.0059
PL	.00745	.585	.005	.0172	.433
Colgate Palmolive	.0046	.149	.035	.0033	.485
Haco Tigers	.00185	.803	.0038	.0059	.513
Kisii Bottlers	.003	.0115	.008	.0065	.428
Sameer Africa	.00745	.585	.0185	.0172	.0033
Ellams Ltd	.0046	.149	.003	.0033	.0059
PZ Cusssons	.0185	.803	.00745	.0059	.0065
MRM	.003	.0115	.0046	.0065	.0172
Spin Knit	.00745	.149	.0185	.0172	.0033
Rai Plywoods	.0046	.803	.003	.0033	.0059
Corrugated Sheets	.0185	.0115	.00745	.0059	.0065

Bamburi Cement	.003	.585	.005	.0065	.0172
Agrochemical	.00745	.149	.035	.0172	.433
Associated Battery Manufacture	.0046	.803	.0038	.0033	.485
Vivo energy Kenya	.01185	.0115	.008	.0059	.513
Treadsetters Kenya	.003	.585	.0185	.0033	.428
Kenya Power ltd	.003	.149	.003	.0059	.0033
Kapa Oil	.00745	.803	.00745	.0065	.0059
Bob Mill	.0046	.0115	.005	.0172	.0065
Mt Kenya Bottlers	.00185	.149	.035	.0033	.0172
Orbit Chemical	.003	.803	.0038	.0059	.0033
Ranji Habhai Devani	.00745	.0115	.008	.0065	.433
Libya Oil Kenya	.0046	.585	.0185	.0172	.485
Excel chemical	.00185	.0115	.003	.0033	.513
Express Kenya	.003	.585	.00745	.0059	.428
Crown industries ltd	.00745	.149	.0185	.0065	.0033
London Distillers	.0046	.803	.003	.0033	.0059
Metro Plastic Kenya	.00745	.0115	.00745	.0059	.0065
Kenya Nut company	.0046	.149	.005	.0033	.0172
Kenolkobil Ltd	.00185	.803	.035	.0059	.0033
H-young	.003	.0115	.0038	.0065	.433
KCB	.00745	.585	.008	.0172	.485
Tourism Promotion	.0046	.0115	.0185	0033	.513
Cocacola East & Central Africa	.0185	.149	.003	.0059	.428
Thika Coffee Mills	.003	.803	.0185	.0065	.0033
Pwani Oil Ltd	.00745	.0115	.003	.0172	.0059
Oserian Development	.0046	.585	.00745	.0033	.0065
Siemens K ltd	.0185	.0115	.0185	.0033	.0172
Premier Bag	.003	.585	.003	.0059	.0033
Pan Africa Hotel	.00745	.149	.00745	.0033	.513
Karuturi Ltd	.0046	.803	.005	.0059	.428
Mumias Sugar Co.	.00185	.0115	.035	.0065	.0033
West Kenya Sugar	.003	.149	.0038	.0172	.0059
S.S Mehta ltd	.003	.0115	.0185	.0033	.0065
Kenya Airways	.00745	.149	.003	.0059	.0172
Apex Steel ltd	.0046	.803	.00745	.0065	.0033
Sojpar Ltd	.00185	.0115	.0185	.0172	.433
Inter Consumer	.003	.585	.003	.0033	.485
Ishano Distributors	.00745	.0115	.00745	.0059	.513
Summit ltd	.0046	.585	.005	.0065	.428
Multi Choice Kenya	.00185	.149	.035	.0033	.0059
Hashi Energy Ltd	.00745	.803	.0038	.0059	.0065
Leens Store Ltd	.0046	.0115	.005	.0033	.0172
Citibank	.00185	.149	.035	.0059	.0033
National Oil	.003	.803	.0038	.0065	.433

Corporation					
Amiran Communications	.00745	.0115	.0185	.0172	.485
Wines of the World	.0046	.149	.003	.0033	.513
Kenya Kazi Services	.00185	.0115	.00745	.0059	.428
Gapco Kenya Ltd	.003	.149	.0185	.0065	.0033
Erdeman Kenya ltd	.0046	.803	.003	.0172	.0059
Keroche Ltd	.00185	.0115	.00745	.0033	.0065
AAA Growers	.003	.585	.005	.0033	.0172
Safaricom Ltd	.00745	.0115	.035	.0059	.433
Erdeman Co Ltd	.0046	.585	.005	.0033	.485
Total Touch Cargo	.00745	.149	.035	.0059	.513
Alan Dick Company	.0046	.585	.0038	.0172	.428
Kenya Sugar Authority	.00185	.149	.005	.0033	.0059
Kenya Re	.003	.803	.035	.0059	.0065
Hass Petroleum	.00745	.0115	.0038	.0065	.0172
YH Wholesalers	.0046	.149	.0185	.0033	.0033
Lion of Kenya Insurance	.00185	.803	.003	.0059	.433
Kenya AA	.003	.0115	.00745	.0033	.485
Alliance One Tobbaco	.00745	.149	.0185	.0059	.513
Naivas Ltd	.0046	.0115	.003	.0065	.428
Mobile Kenya Ltd	.00185	.803	.035	.0033	.485
Liquid Telecommunications	.003	.0115	.005	.0059	.513
African Spirits Ltd	.00745	.585	.035	.0065	.428
Kibos Sugar	.0046	.0115	.0038	.0172	.0059
Soltan Selmac Ltd	.00185	.585	.005	.0033	.0065
Air Kenya Ltd	.003	.585	.035	.0358	.0172
Aggreko International	.00745	.0115	.0038	.0356	.0033
Erickson international	.0046	.585	.0185	.0148	.433
Gulf energy ltd	.00185	.149	.003	.01456	.485

Source: KRA Database

APPENDIX III: SUMMARY OF GDP & VAT IN BILLIONS OF

KENYA SHILLINGS.

YEAR	GDP IN BKSH	TOTAL VAT FROM LTO	REVENUE FROM AUDITS	TOTAL VAT REVENUE (LTO+DR)	VAT REVENUE FROM PENALTIES	VAT REVENUE FROM TAXPAYERS INVESTGATED FOR FRAUD	VAT ON IMPORTS
2008	2107.6	55.262	0.633	141.008	0.44	0.36	60.408
2009	2366.98	30.16	17.63	145.53	0.142	0.52	62.946
2010	2549.83	78.006	11.62	155.23	0.27	0.26	75.336
2011	3024.79	69.73	55.97	185.38	0.265	0.41	95.149
2012	3176.03	47.09	45.87	231.31	0.45	0.28	75.740
2013	3331.65	66.90	81.21	218.71	0.138	0.27	114.197
2014	5340.01	70.04	29.41	255.22	0.213	0.32	121.56

Source: KRA Revenue Bulletin – 2014 & KNBS

APPENDIX IV: VAT CONTRIBUTION TO GDP; CONTRIBUTION OF VAT FROM AUDIT, PENATIES, CRIMINAL SANTIONS & IMPORTS TO VAT REVENUE

YEAR	VAT/GDP (Y)	AUDIT RATE (X_1)	PENALTIES (X_2)	CRIMINAL SACTIONS (X_3)	VAT ON IMPORTS/TOTAL VAT (X_4)
2008	.0003	.0115	.008	.0065	.428
2009	.00745	.585	.005	.0172	.433
2010	.0046	.149	.035	.0033	.485
2011	.0185	.803	.0038	.0059	.513
2012	.0144	.974	.0096	.0059	.327
2013	.0244	.012	.0021	.004	.522
2014	.0055	.42	.003	.0046	.476

Source: KRA 2014