

A Study of the Productivity of Value Added Tax (VAT) in Kenya

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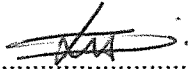
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Abstract

This study set out to establish Value Added Tax (VAT) productivity in Kenya as well as establish the factors that affect VAT productivity in Kenya. VAT productivity was measured using autoregressive models whereas the factors affecting VAT productivity were sourced from both taxpayers and the tax administration by use of questionnaires. Descriptive statistics by use of simple ratios and content analysis were used to analyze the questionnaires. It was found that VAT is responsive to changes in GDP, a contradiction with previous studies done in Kenya. Further analysis showed that VAT was rigid to changes in GDP up to the financial year 2004/05 and the years that brought about the shift in responsiveness were the last seven years running from 2005/06 to 2011/12. However the positive trend was eroded in 2011/12 due to the scrapping of the withholding VAT system. The VAT system did not possess most of the characteristics of a workable tax system of simplicity, convenient, certainty and productivity. The study also found that taxpayers faced challenging compliance costs and that there was neglect of the medium and small taxpayers who were found not to be compliant because of computational difficulties and lack of audit. The tax administration also faced difficulties in implementing VAT laws due inadequate resources. From the above Kenya Revenue Authority (KRA) needs to shift focus from revenue collection to coming up with systems that are more taxpayer oriented so as to enhance their compliance with VAT laws. A few reforms that are seen to have negatively impacted VAT collection need to be reviewed key among them was the withholding VAT issue. This study contributes to the existing research on productivity of the Kenyan system by documenting the specific difficulties encountered in enforcing VAT laws as well as difficulties faced in complying with VAT laws. This study also brings to light the fact that VAT is responsive to GDP in contrast with previous studies.

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Dedication

This thesis is dedicated to Peter K. Kiptanui. Thank you for always being there for me.

May God always take care of you and may HE bless the work of your hands.

CHAPTER 1: INTRODUCTION

1.1 Background

The government of Kenya primarily raises its revenue through collection of taxes from the public. This is done through various tax heads, namely Pay as You Earn tax, Corporation tax, withholding tax, Value Added Tax (which is our focus), Customs duty and Excise tax. Money collected from these various tax heads, averages around 76% of the total budget collections in any given fiscal year against the Government Expenditure: FYR 2004/05- 88%, FYR 2005/06- 76%, FYR 2006/07- 81%, FYR 2007/08- 74%, FYR 2008/09- 77%, FYR 2009/10- 70%, FYR 2010/11- 66%, (Budgetary statistical Annex 2011/12).

The Kenya Revenue Authority (KRA) was established by an Act of Parliament, Chapter 469 of the laws of Kenya, which became effective on 1st July 1995. The Authority is charged with the responsibility of collecting revenue on behalf of the Government of Kenya for a commission of 2% of the monies collected (KRA website). The Kenyan Government has been operating on deficit budgets: FYR 2005/06- Ksh.51, 497 Million, FYR 2006/07- Ksh.31, 046 Million, FYR 2007/08- Ksh.77, 173 Million, FYR 2008/09- Ksh.126, 442 Million, FYR 2009/10- Ksh.177, 127 Million, and FYR 2010/11- Ksh.234, 716 Million, (Budgetary statistical Annex 2011/12). The trend shows that the deficit has been growing as the years advance. KRA missed its revenue collection target for the financial year 2011/12 by about Ksh.20Billion. Consequently it has not met its collection target for the last five years except the financial year 2010/11 when it collected Ksh.635 billion against a revised target of Ksh.631 billion.

KRA has over the years requested Treasury to revise its allocated targets downwards sighting a number of reasons from the prevailing macroeconomic factors of rising inflation, volatility in exchange rates and the performance of key industries in the Kenyan Economy; Construction, Manufacturing, Agriculture among others. It is clear from the above statistics that KRA plays a vital role in the collection of government revenue through the various tax heads listed above.

Just like the government has been running on deficit budgets, KRA has not been meeting its allocated targets over the years. To change this trend, one of the goals that KRA has been pursuing is that of enhanced voluntary compliance of payment of taxes by all taxpayers. Most of the taxes that KRA collects come from voluntary payment of the same by taxpayers through the self assessment criterion; whereby, a taxpayer assesses him/herself and remits the tax that is due and payable from the various tax generating activities that he/she might have engaged in. Evidently for this process to succeed, there needs to exist a near 100% compliance level by all taxpayers when it comes to self assessment and remittance of tax.

Several reforms pertaining to its operations and infrastructure have been constituted and implemented over the years. However even with the above one tax head in particular, Value Added tax (VAT) has not been responsive to the changes in reform and has remained very rigid, (Kotut & Menjo 2012). Value added tax is a tax levied on final consumption of taxable goods and services supplied or imported into Kenya and came into force in January 1990. It was introduced as a replacement to sales tax which at the time was seen as being ineffective because of its restriction to sale of goods at the manufacturing and importation level only. Imposition of VAT was to increase government revenue through an expanded tax base. In Kenya any supplier who has an annual turnover of Ksh.5, 000,000 and above is obligated to charge VAT and remit the same to KRA by the 20th day of the subsequent month. Suppliers who do not necessarily meet the turnover threshold can still register for VAT voluntarily should that be a mandatory condition set by the customers they deal with.

One criterion of a good tax system is high revenue productivity (Nellen, 2006). One of the ways of measuring tax productivity is through the models of tax buoyancy and elasticity (Twerefou et al., 2007). Tax buoyancy is defined as the measure of how the actual revenue from a tax changes due to any changes in the tax law and the tax base change, while tax elasticity refers to the actual revenue change from a tax due to any changes in the tax base change holding the change in tax law constant (Haughton, 1998).

The theory behind tax buoyancy and elasticity is that the two concepts help us gauge the productivity and responsiveness of a tax to changes in its base which more often national income – GDP (Kotut & Menjo, 2012).

Research carried out on the Kenyan Tax system and tax components as a whole in the recent past, has shown that the tax system over the years is less buoyant to changes in GDP, with VAT being the most rigid of all the tax heads (Kinyanjui & Moyi, 2003; Karingi & Wanjala, 2005; Oketch & Mburu, 2011; Kotut & Menjo, 2012). This paper sought to find out why this is the case. In analyzing the causes of VAT's rigidity, analysis of the compliance levels of taxpayers towards charging and remittance of the same was analyzed. Studies have shown that remittance of VAT compared to taxes from other tax heads is low. Complying with the payment of a tax has been associated with the perceived probability of detection and severity of punishment (Allingham and Sandmo, 1972; Slemrod, 1985; Vazquez and Rider, 2003). This makes us question the role that audits play in enhancing compliance (Armando, 2006).

1.2 Definition of terms:

1.2.1 Productivity

Omojimitte and Iboma, (2012) define the productivity of a tax system as the ability of the system to yield sufficient revenue to meet government expenditure and is related to the concept of efficiency in tax administration and collection. Many researchers have used the concept of tax buoyancy to measure productivity of taxes, relating the ability of the taxes to respond to a change in the economic activity by a more than proportionate change thereby concluding that that signifies productivity of the tax (Wilford, 1978b; Kinyanjui & Moyi, 2003; Karingi & Wanjala, 2005; Oketch & Mburu, 2011; Kotut & Menjo, 2012).

1.2.2 Tax Buoyancy, Elasticity and Rigidity

Ahmed (2010) defines the buoyancy of tax as the total response of tax revenue in percentage term to a percentage change in GDP. It can also mean the 'built-in flexibility' of any given tax to a change in the tax base within a given tax structure (Suresh and Khan, 2011). Tax elasticity is much like tax buoyancy but with a crucial difference.

Haughton, (1998) describes it as how well a tax responds to a unit change of its base with revenue calculated as it would have been had there been no change in the tax laws including zero change in tax rates or bases. Revenue collections and national income share a positive relationship Wilford (1978b) and lack of responsiveness of a particular tax to the changes in National income of is referred to as rigidity. Some studies indicate that rigidity might be an indicator of low tax compliance.

1.3 PROBLEM STATEMENT

Value added tax (VAT) was introduced in Kenya in 1990 as a replacement to sales tax. The switch was motivated by the argument that VAT had a higher revenue potential, and that its collection and administration were more economic, efficient and expedient, (Kinyanjui et al., 2003). Over the years several changes have been made to the VAT ACT in a bid to improve VAT's productivity by increasing the revenue collected from it. These changes include among others, the reduction of the number of rates; from a maximum rate of 150% in 1990 to the current maximum rate of 16%. The turnover levels that would automatically require a supplier to register for VAT have also been adjusted over the years. In the FY 2012 through the VAT Bill 2012 the tax authorities seek to make further amendments to VAT with the hope of improving VAT's buoyancy.

However, even with all the above reforms to VAT's administration and operations, it is still the most rigid of tax to changes in National Income (Kinyanjui & Moyo, 2003; Karingi & Wanjala, 2005; Oketch & Mburu, 2011; Kotut & Menjo, 2012). Whereas all these studies have extensively measured tax buoyancy of VAT and ascertained it to be rigid, none of them give reasons as to why this is the case. What is known from previous studies done is that VAT is rigid to changes in GDP, what is not known however is why that is the case. Establishing why VAT has been rigid to changes in national income is important because solving this problem would improve its buoyancy and hopefully improve VAT productivity. This is because VAT is the only tax head that has the ability to reach a wider tax base and when turned around, will net in the revenue needed to cover government expenditure in the county and save it from huge public debt that is susceptible to markets risk; Interest rate risks and Foreign exchange rate risks. This study aimed at analyzing the factors affecting VAT productivity.

1.4 Objective of the study

The study aimed at determining the productivity of VAT in Kenya and establishing the factors affecting it.

1.5 Specific Research Objectives

1. To estimate VAT productivity in Kenya
2. To establish the factors affecting the productivity of VAT in Kenya

1.6 Research Questions

This study is guided by the following research question:

1. What is the productivity VAT in Kenya?
2. What are the factors affecting productivity of VAT in Kenya?

1.7 Significance of the Study

Having in mind the numerous reforms we have had on our tax system year in year out, the main cause of rigidity needs to be identified more so for VAT because in itself it is the single most tax head that if properly administered has the capacity to reach a wider tax base hence net in the most revenue collected for the government. Increased productivity of VAT will mean that the tax head is responsive to national income, and as such projections of VAT collection can be ascertained almost to precision and government planning will be effective. Precise tax marksmanship is important in maintaining internal balance for the authorities as well as for forecasting and expenditure of the same (Auld, 1990).

The findings of the research are useful to the following stakeholders:

1.7.1 Kenya Revenue Authority

With VAT performing below target among all tax heads, this study will be in a position to answer why that is and most importantly ways of mitigating against the shortfalls can be constituted.

For KRA to fully carry out its mandate, it would be in its best interests to establish why there is a low compliance level in remittance of VAT and how it can improve the collection efficiency of the same.

1.7.2 Policy Makers

Policy makers in Kenya especially in taxation matters, will be able to find the disconnect between the laws they make and the people the laws are meant to be administered to and how best to work with the other side to ensure the success of the policies rolled out. This way reforms aimed at VAT in future will perhaps be more fruitful than they have been in the past.

1.7.3 Tax Payers

The study can provide an avenue for formally documenting and presenting taxpayer perceptions of the VAT system with regard to the canons of taxation, in response to which tax authorities might come up with policies that are more taxpayer oriented as opposed to income oriented.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The analysis in this chapter covered the concept of VAT productivity measured through the concepts of VAT buoyancy and Elasticity, the principles of a good tax system, Gross domestic product (GDP); the base upon which the buoyancy of taxes is measured against. A taxpayer's compliance with charging and remittance of VAT was also analyzed; the theory here was that rigidity could be an indicator of low compliance levels with VAT laws. The chapter also looked into the best practices underlying tax administration and tax reforms and whether these were practiced in the Kenyan context. This study explored VAT's productivity; measured through the concept of Tax buoyancy explained below, previous studies done, showed that VAT has been rigid over the years to changes in its base; National Income (GDP).

2.2 Value Added Tax (VAT)

According to Ebrill et al. (2002) in their article the allure of VAT, the adoption of Value Added Tax (VAT) was seen to be the most important development in taxation. Other developed nations like the United States and China had most recently expressed interest in adopting a VAT system with studies and white papers done to analyze the pros and cons of adopting such systems. China had gone ahead to launch a pilot of the tax in Shanghai. Linholm (1970) explained VAT as having been of German and American origin after world war one. He further described VAT as tax applied as a percentage of the value of a product at the point of sale. Metcalf, (2005) brought the value added to goods angle by defining VAT as tax that taxed the value added in production through the various stages of production of a product or service. KRA in an effort to simplify the definition for taxpayers in the tax payer's charter defined VAT as a consumption tax charged on local sales as well as on the importation of taxable goods and services. All the definitions above brought out the aspect of VAT being tax that was essentially levied on consumption.

2.2.1 VAT Structure in Kenya

VAT in Kenya came into effect on 1st January 1990 as a replacement to the then sales tax. VAT was put in place to address the shortcomings of sales tax that resulted in double taxation and general complexity of administering it due to many differentiated rates, in addition it was presumed to have higher revenue potential (Kinyanjui et al, 2003). Initially there were fifteen different tax rates that were in force, over the years however the number of rates have reduced to just three (Appendix 2) making the VAT system simpler to administer as compared to sales tax.

The Kenya revenue authority collects VAT through the self assessment system. In this system, a taxpayer assesses himself as to the VAT able sales he made during the month and calculates the output VAT on the same. From this he deducts input VAT incurred in the generation of the VAT able sales; the net of which has to be paid to the commissioner of domestic taxes by the 20th day of the subsequent month. VAT on imported goods is collected by the commissioner of customs.

Taxpayers who are obligated to register for VAT are those that make an annual turnover of KES.5, 000,000 and over. Other traders who do not make the threshold can still register for VAT under the voluntary registration process. Currently the number of taxpayers registered for VAT is about 64,000 companies of which about 20,000 of them are dormant companies with no single return filed since they were constituted. This high number of dormant companies was attributed to system and structural elements of the VAT system. The first one was that taxpayers who registered for VAT because of their need to transact with the government. This resulted in the registration of many companies which did not meet the threshold regardless of whether they won the tenders or not. The other reason cited was that subsequent deregistration for VAT purposes was not sort particularly after business failure. Lastly, individuals through the process of registering for personal identification numbers (PIN) put down VAT as a tax obligation even when they were not liable this was mainly due to lack of knowledge of what that entailed. This brought the active number of registered VAT taxpayers to about 44,000.

Past studies done to measure the productivity of the Kenyan tax system over the years had come to the same conclusion that VAT to date, still remained the most rigid tax head in the Kenyan tax system (Kinyanjui & Moyi, 2003; Karingi & Wanjala, 2005; Oketch & Mburu, 2011; Kotut & Menjo, 2012).

2.3 Productivity and Measurement

Omojimate and Iboma (2012) defined the productivity of a tax as its ability to yield sufficient revenue for government expenditure. They went on to add that if the tax system was unproductive, fiscal deficit would be unsustainable and would lead to insolvency. This definition brought about the adverse effects of unproductive tax systems to the economy of a country by relating low tax productivity to the growth of budgetary deficits. The canon of Productivity formulated by Adam Smith as quoted by Alley & Bentley (2005) stated that a productive tax was one that yielded enough revenue for the treasury and that a government needed not to resort to deficit financing (Appendix 1). These definitions all pointed to the fact that for a tax to be productive, it had to possess the ability to generate revenue that adequately covered government expenditure.

The US government accounting office in 2011 did a working paper that gave a measurement of productivity using simple ratios of input versus output of the tax system. The output of a tax was easy to measure because that was denoted by the revenues collected from it. The Input that went into the generation of the revenue however was not easy to measure because it involved every single cost element that went towards the administration of the tax and the compilation of the same. Past studies done used the concept of tax buoyancy and elasticity to measure productivity of a tax system (Wilford, 1978b; Kinyanjui & Moyi, 2003; Karingi & Wanjala, 2005; Aizenman, et al. 2007; Kotut & Menjo, 2012). This measurement criterion is simple to use because it only requires data input of GDP figures and the revenues collected on an annual basis.

Most researchers used this method to analyze the buoyancy of the Kenyan tax system, and the findings all came to the same conclusion that VAT was unresponsive to GDP, hence unproductive as a tax.

2.4 Tax Buoyancy

Wilford (1978b) gave two parameters in the measurement of fiscal performance of emerging markets as; a tax structure that generated higher revenues both through discretionary action (tax rate and base changes, legislative action, improvement in collection techniques, etc.) and through revenue growth generated by the economic activity of a country. The second criterion of measurement related revenue responsiveness yields to movement in economic activity (measured through GDP), hence the concept of tax buoyancy.

More studies on the same concluded that the productivity of a tax was measured by how well it responded to changes in National income –GDP which was the base mostly used in the calculation of this ratio. Aizenman et al. (2008) explained that the collection efficiency of any tax was measured through the concept of tax buoyancy which in their study was affected adversely by political instability and also affected by structural factors. The factors cited were urbanization, openness and agricultural share. Ahmed et al. (2010) examined the determinants of tax buoyancy in developing countries. Their research was based on various sectors of the country. They concluded that import and manufacturing industries in a developing country were important to the growth of taxes and more so their buoyancies, while sectors like agriculture were insignificant.

2.4.1 Gross Domestic Product (GDP)

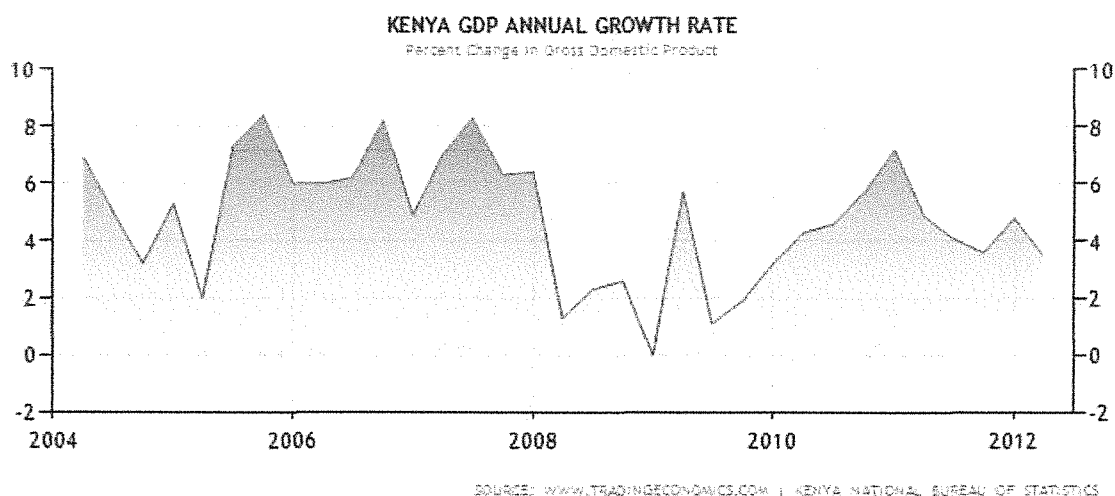
Gross domestic product (GDP) is described as a summary in digits of the value of economic activity in one calendar year (CBK). Leamer in his book, (Macroeconomic patterns and stories), described GDP as the market value of goods and services that were produced within a selected geographical area in a given year. Viet (2009) described it as the total value of goods and services that were newly produced in the economy during an accounting period that generated income for the economy and were for domestic use or for exports. The first definition gave a general idea of what GDP was. The other two gave ways of measuring the same, with Leamer bringing about the production aspect of all goods and services produced.

GDP had been used in numerous studies as the base for calculating tax buoyancy. This stemmed from the positive relationship between revenue collections and national income (Wilford, 1978b). Hinrichs, (1966) argued that the level of economic development had a very strong impact on a country's tax base. Gupta (2007) gave one of the structural factors that determined revenue performance of a country as per capita GDP; this was because it was a proxy of overall development of an economy and therefore expected to be positively correlated to tax revenue as it showed the economic development and sophistication of the economy (Tanzi, 1992; Piancastelli, 2001).

There are three methods that are used the world over to measure GDP. That is the Production method, Income method and finally the Expenditure method.

In Kenya the most preferred methods of measuring GDP are the Production Method and/or the Expenditure method. The income method is not preferred because in a country marred with under declarations of income the method would not be nearly as accurate as the first two because data on the production and expenditure methods is more accurate. GDP is accounted for by the System on National Accounts (SNA) which is tasked with estimating the GDP figures among other macroeconomic factors. Both methods of calculation however do produce different figures the difference of which is normally put down as a discrepancy though not very significant. More developed countries like Canada and the United States compute GDP using the Income method because they have superior integrated systems that are able to interlink the banking systems and the revenue collection systems hence data on the same is accurate.

Figure 2.1: Snapshot of Kenya's Annual GDP Growth Rate in the past 8years



GDP's usage as the base in the measurement of VAT's buoyancy had come under scrutiny. Haughton, (1998) in his article on estimation of tax buoyancy used GDP as the base, however he acknowledged that other bases could be used, for example, consumption for sales tax and VAT. The school of thought was explained with more conviction by Ebrill et al. (2002) in their article the Allure of VAT, where they rule out the use of GDP as the base due to the errors encountered in estimating GDP which in their words 'might contaminate the results'. They use the C-efficiency method that uses consumption as opposed to GDP as the base in measuring VAT buoyancy.

2.5 Tax Elasticity

Tax elasticity is much like tax buoyancy but with a crucial difference. Haughton, (1998) describes it the responsiveness of a tax to a unit change of its base with revenue calculated as it would have been had there been no change in the tax laws including zero change in tax rates or bases. Unlike Tax buoyancy that can actually be increased by the use of policy and reforms, the aim of finding out the elasticity of a particular tax head would be to find out which tax heads are naturally responsive to changes in GDP. Elasticity is more practical for single tax heads. To estimate the built-in elasticity of a tax with respect to aggregate income, the actual VAT revenue collection was adjusted for discretionary effects.

The various methods of adjusting a revenue series of discretionary effects are: (1) Constant rate method, (2) Proportional adjustment method, and (3) Dummy variable technique. This study used the Proportional dummy approach.

2.5.1 Proportional Adjustment Method

The proportional adjustment method adjusts a historical revenue series according to a particular year's tax structure on the assumption that this particular tax structure is maintained throughout the period under consideration. Thus, this method basically involves two steps. First, collected revenues data for each year are adjusted for discretionary changes by removing the estimated revenue impact of discretionary changes. This gives an estimate of the automatic growth in revenue between two successive years. Secondly, the series are converted to the first year's basis by adjusting the year to year changes by the ratio of the tax yield on the basis of the first year rates to the actual tax yield (Indraratna, 1991). The adjusted data is then used in a regression analysis equation.

2.5.2 VAT Buoyancy and Elasticity in Kenya

Various studies analyzing the buoyancy of the Kenyan tax system by different researchers over the years have been carried out (Kinyanjui & Moyi, 2003; Mwikali, 2006; Oketch & Mburu, 2011; Kotut & Menjo, 2012).

Kinyanjui & Moyi, (2003) used the method of logarithmic regressions of revenue figures to GDP in analyzing two periods; pre reforms period-the years before the mid-1980s (1973-1985) and post reforms – the years after the late 1980s (1986-1999). The latter period was essentially the period covering the introduction of VAT; they found that VAT recorded the least buoyancy compared to any other tax head thereby affecting the overall responsiveness of the entire tax system. Sales tax according to their findings was responsive to changes in GDP as evidenced by a buoyancy of 1.216, however the buoyancy of sales tax/VAT in the post reforms period dropped down to 0.674; a measure below unit. This they concluded affected the overall buoyancy of the entire tax system as every other single tax head's buoyancy levels was above unit.

Oketch & Mburu, (2011) analyzed time series data for the period 1986-2009 and measured VAT productivity. They used the ordinary least square method after linearizing the data and regressed GDP figures against VAT revenue figures. In addition, proportional adjustment method was then used to estimate the elasticity. They concluded that the Kenya tax system was not income elastic neither was it buoyant. VAT/Sales tax specifically had a low tax-to-base elasticity as well as the lowest buoyancy making it the most rigid tax head to changes in national income. This they attributed to the combined effect of evasion and inefficiency in tax administration over the period.

Kotut & Menjo, (2012) in their journal 'Elasticity and Buoyancy of Tax Components and Tax Systems in Kenya' used the concept of tax buoyancy and proportional adjustment method to measure the tax system income elasticity and buoyancy in Kenya. The period that they reviewed was similar to the study by Oketch & Mburu which was from 1985-2009, they dubbed this era the post reforms era because this is when the tax modernization strategies were implemented across all tax heads. In their findings, the Kenyan tax system was neither income elastic nor buoyant. Specifically, VAT/Sales tax buoyancy for the period under review was found to be below unit, that is, 0.879. They concluded that growth in GDP spurred less than proportionate automatic increase in tax revenue. This study conforms to Oketch & Mburu, (2011) in both findings and the period reviewed.

Mwikali (2006) also using the logarithmic regression method covering the period 1973-2003 found that reforms in the tax system had more impact on tax elasticity than buoyancy, she concluded that the improvements in tax efficiency were due to automatic changes rather than discretionary policy and VAT was still the most rigid tax head.

2.6 Factors affecting VAT Productivity in Kenya

2.6.1 Principles of a Good Tax System

Smith (1776) as quoted in Alley & Bentley (2005) developed several principles that should characterize a good tax system; these principles/canons are still referred to in the modern age when any country is trying to formulate a productive tax system albeit with a few changes (Appendix 1).

The changes done to the original list by Adam Smith are analyzed by Alley & Bentley (2005) who observed that, though the principles of Adam Smith are still relevant, many economies taking into consideration their changing economic environments had to remodel the principles. However, the changes were more of improvements to the original principles as opposed to deviations from the same. The principles highlighted captured the parameters that made any tax system easier to administer for the tax administration and easy to understand and adhere to for the taxpayers. Over the course of several hundred years, a set of principles for designing tax systems has evolved. In 2001, the American Institute of Certified Public Accountants (AICPA) published a report outlining a set of ten principles to be followed in designing productive, workable and fair tax systems. Alley & Bentley (2005) concluded that with a little modernization to the principles, tax authorities would be able to engineer a tax system that would be able to meet its core objectives.

Objective number 2 of this study will be analyzed by capturing the attitudes of both the tax administration and the taxpayers towards the VAT system. This will hopefully help us gauge whether VAT's adoption and implementation in Kenya has managed to satisfy the criteria set out for a workable tax system that is meant to guarantee its success in meeting its objectives and being productive.

2.6.2 Tax Compliance

The issue of tax compliance is important in understanding the effectiveness of a tax or non performance of the same. Tax compliance can be approached from many perspectives: it can be viewed as a problem of public finance, law enforcement, organizational design, labor supply, or ethics, or a combination of all of these (Andreoni et al. 1998). In their study they explained tax enforcement as being a problem of law enforcement associated with penalties and the probability of detection through audits. This idea was supported by Aizenman et al. (2006) in their study where they explained the concept of collection efficiency as being a factor of the probability of audit as well as penalties that accrued due to non compliance with tax laws. The aspect of the possibility of penalties and audits to enhance tax compliance was also shared by Slemrod (2007) who reiterated that payment of taxes had to be made the legal responsibility of citizens,

with penalties accruing in case of noncompliance. The deterrence theory, pegged down the reasons for compliance as: the benefits of complying outweighing the costs of the same; decisions to comply being closely related with the individual's risk aversion, the opportunities to cheat and the perceived probabilities of detection and sanctions.

In contrast, Bergman et al. (2006) in their analysis of the Argentinean and Chilean markets while not refuting the facts that audits served to enhance compliance of tax laws by taxpayers, their study showed that this was the case only for those taxpayers who were prone to compliance, while to cheaters audits had the undesired effect of furthering noncompliance behavior. They went on to add that the threat of punishment was only credible among those who had not yet been audited, once enforcement actions had been effected, the threat would no longer be perceived as severe among entrenched cheaters. In conclusion however, they reiterated that the question as to whether audits deterred non compliance was more societal, in that countries where there was heavy presence of tax compliance then audits would act as a deterrence but in countries where cheating was the norm then compliance levels were low and no amount of sanctioning would improve compliance levels. Straus et al. (2001) introduced a new aspect as to why taxpayers were not be compliant with tax laws, when they linked that to the uncompetitive salaries that tax official received, making them more vulnerable to compromise. This in turn eroded the confidence of the taxpayers in the personnel's ability to channel their taxes to good use. The concept of tax compliance brings forth compliance costs. This study concentrated on the various compliance costs of taxation more so to the taxpayers, as it sought to explain how they would affect the taxpayer's attitude towards complying with charging and remittance of VAT.

Compliance costs are defined as costs incurred by taxpayers in meeting the requirements laid on them by tax law and revenue authorities, over and above the actual payment of tax, and over and above any distortion costs inherent in the nature of the tax (Sandford, 1995). Tran-Nam et al. (2000) introduced three broad categories of social costs that came about as a result of taxation namely; Efficiency costs that were as a result of tax-induced changes in relative prices which distorted consumer and producer choices thereby causing losses in overall output.

This directly affects the buoyancy and elasticity of a tax system. Feinstein (1991) highlighted one of the most important costs of tax evasion as loss of government revenue. Slemrod (2007) explained that with the implementation of a tax system, some taxpayers would not pay what they owe, and with time the ranks of the dutiful payers would shrink as they began to feel taken advantage of. In his Journal, he explained that tax evasion was higher among those with lower incomes as opposed to those with higher incomes; the poor evaded and the rich avoided. This particular observation was consistent with the above analysis on compliance costs. Big firms tended to incur lower compliance costs due to tax planning because they could afford to engage tax agents, smaller firms would likely evade more because they did not have the money to take on tax agents, moreover they did not possess the knowledge on tax planning or computation and eventually they evaded tax altogether.

Clotfelter (1983) in his study showed the correlation between tax evasion and tax rates through the analysis of individual returns; his conclusion was that the reduction of tax rates would reduce tax evasion and that there was high compliance for wages, interest and dividends. The reason given was that it was simpler for taxpayers to report them on tax forms as compared to other tax heads. This argument connected with the aspect of compliance costs particularly pre filing and filing costs being key compliance costs to a taxpayer.

There existed need to simplify the tax systems as a whole so as to reduce compliance costs on the taxpayers for improved compliance and subsequent reduction in tax evasion. One way of doing this was through policies rolled out pertaining to the tax system of a country as was the conclusion in the analysis of compliance costs above.

2.6.4 Tax Administration and Tax Reforms

The above analysis brought us to the important role that tax authorities and tax reforms played in simplifying tax systems so as to reduce compliance costs on the taxpayer and enhance compliance. The administration of a tax system is important more so for the successful implementation of the same.

The Organization for Economic Cooperation and Development (OECD's) Information note on tax administration (2009) highlighted the importance of the tax administration in promoting consultative and collaborative relationships with taxpayers so as to ensure successful implementation and full compliance with policies by taxpayers. It emphasized on the idea of tax administrations fostering good relationships with taxpayers, in this way the administration would be in touch with the risks that businesses faced. This they reiterated would be helpful in tailoring policies that would help both sides of the divide to meet their objectives.

Some of the reasons laid down as the causes of the need for tax reforms were: to restore buoyancy to tax heads, simplification and enhancement of transparency of the tax system (World Bank, 1990).

"Tax complexity increases the likelihood that taxpayers are non-compliant unintentionally" Kopczuk, (2006), in his article emphasized on the role that the administration should play in enhancing compliance among taxpayers. This was to be done by enhancing the probability of detection through audits that would serve to increase compliance levels and alleviate problems resulting from taxpayers' confusion. Other reasons given were the efforts geared towards making the tax administration independent and professional (Jenkins, 1994).

This was done through change in legislation, policies aimed at improving tax administration and policies to combat tax evasion. Indeed it was policy geared towards simplification of tax as well as revenue enhancement that brought about the implementation of VAT (Wells et al., 1999).

Boeters et al. (2010) while analyzing VAT in Germany recognized it as a relatively efficient way of raising revenue. Most countries that had adopted the VAT system did so due to the problems that arose from an existing sales tax that brought about double taxation resulting in the cascading effect of taxation (Kapoor et al., 2011). VAT was introduced to address this issue among others. In Kenya, the adoption of VAT was seen as the answer to simplification of tax administration, improved compliance levels, minimization of tax evasion and general enhancement of revenue (Karingi et al., 2005). The revenue structure had to be flexible enough to guarantee that revenue would grow faster than national income as was required by the growth in expenditure.

Tax policy therefore had to ensure that every single tax head was responsive to national income, VAT was no exception. Over the years various reforms were put in place to try and improve VAT's performance (Appendix 2: Appendix 3) but even with the changes studies done over the years still showed no improvement in VAT's productivity. This begged the question "was the administration coming up with the right reforms geared towards enhancing buoyancy and elasticity of taxes?"

2.7 Summary of the Chapter

The concept of tax productivity can be measured using the econometric models of tax buoyancy and elasticity. The theory behind tax buoyancy dictates that any particular tax head should respond to a change in its base. In our case, VAT's collection efficiency should increase or decrease with a shift in either direction of the Country's GDP. To date VAT has remained rigid. The question still remains why? In answering this question this study looked at the concept of compliance costs that accrued to a taxpayer. The deterrence theory, which was supported by (Andreoni et al, 1998; Aizenman et al, 2006; Slemrod, 2007) in their analysis, stated that compliance could be enhanced where the benefits of complying far outweighed the cost of it as well as the risk of detection through audits. In contrast Bergman et al. (2006) suggested that the risk of detection did not enhance compliance among cheaters, however they did not rule out compliance costs as a determinant of compliance. In Kenya, not much research had been done pertaining to the compliance costs of taxation to taxpayers, more so for VAT which seemed rigid, signaling high levels of non-compliance when it came to charging and remittance of the same.

Some of the goals of the tax administrations in formulating policies and reforms are meant to be geared towards the simplification of the tax system, fostering collaborative relationships between the taxpayer and the tax administration and in our study improving the buoyancy of the various tax heads (World Bank, 1990; Wells et al, 1999; Karingi et al, 2005).

Studies have shown that with the various reforms over the years, most direct taxes; Corporation tax and PAYE have been buoyant and elastic with the changes as opposed to VAT which maintains its rigidity (Kinjanjui et al, 2003; Njuguna et al, 2005).

This study was aimed at finding out why VAT is rigid in the face of all the reforms formulated over the years in respect to it, what influences the attitudes of taxpayers toward the VAT system and what the tax administration understands to be the factors influencing VAT productivity in Kenya. For purposes of this study KRA officials represented the tax administration.

CHAPTER 3: METHODOLOGY

3.1 Research Design

The research design is both Descriptive and Explanatory. Descriptive design was most suitable for this study because in addressing objective one and two, this study heavily relied on secondary data in calculating the productivity of VAT as well as on the response from interviews of the respondents. Descriptive designs attempt to establish relationships between factors or variables. This study in calculating tax buoyancy aimed at establishing the relationship between VAT buoyancy and its base; GDP. Consequently, in analyzing objective two, the study was aimed at establishing the extent to which taxpayer's attitudes affected the productivity of VAT. This research was also explanatory as the main objective of the study is to explain the reason as to why VAT productivity in Kenya was low.

The study was also both quantitative and qualitative. Analysis of objective one made the study quantitative as it dealt with quantitative data that was measurable in analyzing VAT productivity. The qualitative aspect was brought in during the analysis of objective two by capturing the attitudes of the taxpayers towards the VAT system in Kenya as well as the understanding of the administration and the taxpayer as to what factors affected the productivity of VAT in Kenya.

Objective 2 was analyzed through the use of questionnaires (Appendix 4 and 5). The respondents were: taxpayers who were registered for VAT and KRA commissioners working in the income tax department to represent the tax administration.

3.2 Population and Sampling

The period under review covered FY 1990/91 to 2011/12. The period chosen was suitable because it covered the full period of the adoption of the VAT system as a replacement to sales tax in Kenya. The period also covered all the effects of the reforms on VAT that took place over the years, as well as structural changes to the tax administration in Kenya; including the formation of KRA as the government's tax collection agent in 1995.

In addressing objective two of the study, the target population was taxpayers from two departments in KRA. KRA had grouped taxpayers into two categories: Large taxpayers (LTO) and Medium to Small taxpayers (MST). The LTO group comprised of companies that had an annual turnover of KES 750 million and above, whereas the MST companies have an annual turnover of any figure below KES 750 million. The two departments combined held the 44,000 active taxpayers who were registered for VAT in Kenya. The sample used was a random sample selection that brought the number of taxpayers to 396 taxpayers calculated using Slovin's formula as quoted by Unam, (2012) .The sample formula is:

$$n = N / (1 + Ne^2)$$

n	=Number	of	samples
N	=	Total	population (44,000)
e	= Error tolerance (0.05)		

The interviewer administered questionnaires to the KRA commissioners representing the tax administration were administered on 15 commissioners from the income tax departments.

3.3 Data and Data collection Procedures

In the analysis of objective one, the data that was analyzed was as follows: GDP data both on a yearly basis and quarterly basis from both the Production method and the expenditure method of calculating the same, nominal inflation rates and VAT collection over the years in review. The data covered the period 1990 to 2012 and was collected from the following institutions: Kenya revenue authority (KRA), Central bank of Kenya (CBK), Kenya national bureau of statistics (KNBS), Kenya institute for public policy research and analysis (KIPPRA), and System of National Accounts-Ministry of finance. In addressing objective two of the study, data was collected through surveys which were carried out through self administered questionnaires to tax payers and KRA administrators aimed at gauging their attitude towards the adoption and subsequent implementation of the VAT system through the period covered.

The self administered questioners to taxpayers were sent out to Finance directors or such other person who in their capacity had the know how to answer the questions or could delegate the same to one of his competent juniors. The questionnaires to the tax administration were sent to KRA departmental heads who hold the positions of Assistant Commissioners and above; The officers had the necessary experience on the job having been in service for more than fifteen years and were better placed to analyze the reforms that have been implemented during their tenure of service.

3.4 Data Analysis

In addressing Objective 1 of the study, the quantitative data collected was used to analyze VAT productivity through the method of tax buoyancy which was measured in two different aspects; that is, over time and point to point (year to year). The two measures were undertaken to ascertain whether VAT was rigid to changes in national income as well as bring out the trend of VAT productivity over the years. Autoregressive models were used to measure tax buoyancy of VAT. VAT buoyancy was auto regressed against its base; this was done by regressing the log of tax revenue on the log of the base (GDP), the coefficient on the log of the base is the measure of the tax buoyancy in this case. Model Specification:

$$T = \alpha Y^\beta e \dots \dots \dots (1)$$

Where: T = tax revenue (VAT revenue)

Y = income (GDP)

α = constant term

β = buoyancy coefficient

e = error term

To estimate equation 1 using the ordinary least square method we use the double-log version:

$$\text{Log } T = \alpha + \beta \log Y + e \dots \dots \dots (2)$$

Where: log T = log of tax (VAT)

Log Y = log of Gross domestic Product

e = Error term

In calculating the point to point VAT buoyancy for the various years, the following basic tax buoyancy equation was used:

$$TB = \% (\text{Change in VAT revenue}) \div \% (\text{Change in GDP}) \dots\dots\dots (3)$$

In calculating elasticity, the proportional Adjustment method was used. The equation used was as follows:

$$\ln Tp = \alpha p + \beta p \ln Y + \varepsilon p \dots\dots\dots (4)$$

The P-values from the regression helped in establishing the significance of the independent variables in the model at the 95% significance level. The R-squared value in turn showed the extent of the relationship between the independent variables and the dependent variable. Using the coefficient of determination the strength and significance of the model was established. Other than the regression analysis, simple percentage calculations were done to establish the buoyancy from year to year as well as in categorizing the feedback from the questioners that was handed out. The results will be displayed using regression outputs and tables.

In addressing objective 2 of the study, the qualitative aspect was analyzed through the likert scale. The open ended questions were for content analysis to find out the common aspects in the discussions. Whereas the open ended ones were useful because of personal views from respondents that proved relevant to the research. The questions in the taxpayer questionnaires were aimed at ascertaining whether the taxpayers feel that the VAT system in Kenya adheres to the canons of a good tax system while the tax administrator questions were aimed at getting their views on the challenges faced in administering VAT in Kenya. All this was geared towards establishing the factors that affect VAT productivity both from the taxpayer and tax administrator perspective.

CHAPTER 4: FINDINGS

4.1 INTRODUCTION

The general objective of this study was to determine VAT Productivity in Kenya as well as the factors influencing it. This chapter presents the findings of the study in both narrative and tabulated form. The findings given are based on regression analyses done to determine VAT productivity using VAT buoyancy and VAT elasticity estimates as well as using the responses from questionnaires administered to taxpayers and tax administrators. In addressing objective one, the first section of this chapter discussed inferences drawn from the results of the auto regression analyses output. In addressing objective two, findings from the questionnaires were analyzed using both descriptive ratios as well as content analysis of the open ended questions. The response rate on the taxpayer questionnaires was 108 respondents out of 396 (27%) where as from the tax administration self administered questionnaires was 11 tax officials out of 15 (73%).

4.2 VAT BOUYANCY AND ELASTICITY FINDINGS

In analyzing objective one of this study, auto regressive analyses were used to measure VAT productivity using both VAT buoyancy and VAT elasticity estimates of the relevant periods shown below. Point to point VAT buoyancy was also conducted so as to show the various effects of VAT reforms on VAT productivity over selected years.

Table 4.1: BOUYANCY ESTIMATES FY (1990/91 – 2011/12)

Dependent Variable: VAT

Method: Least Squares

Date: 04/16/13 Time: 08:05

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	1.088231	0.076577	14.21095	0.0000
C	-4.218146	1.076614	-3.917974	0.0010
R-squared	0.983049	Mean dependent var		10.91864
Adjusted R-squared	0.981166	S.D. dependent var		0.689784
S.E. of regression	0.094664	Akaike info criterion		-1.745406
Sum squared resid	0.161302	Schwarz criterion		-1.596188
Log likelihood	21.32676	F-statistic		521.9559
Durbin-Watson stat	2.203364	Prob(F-statistic)		0.000000

The analysis above reported VAT to be buoyant over the period 1990 - 2012 at 1.09 which was above unit. The regression fit was excellent at an R-squared of 0.98. The standard error of the buoyancy was low at 0.09 and the t-test was significant at the 95% level of confidence. The results of this study found VAT to be buoyant at 1.09 meaning that a percentage change in GDP would lead to a more than one percentage change in VAT revenue. This was in contrast with the previous studies done on VAT buoyancy in Kenya which resulted in VAT's buoyancy being less than unit (Kinyanjui & Moyi, 2003; Karingi & Wanjala, 2005; Oketch & Mburu, 2011; Kotut & Menjo, 2012).

This can be explained by the fact that previous scholars while applying more or less the same method of analysis which was regression analysis, the period they reviewed were not exclusive to the VAT regime only which came into effect in the FY 1989/1990. For example, (Kinyanjui & Moyi, 2003) period of study was a pre reforms era of (1973-1985) and a post reforms era of (1986-1999). Oketch & Mburu (2011) on the other hand studied the period (1986-2009) while (Kotut & Menjo, 2012) reviewed the period similar to Oketch and Mburu's that is, (1985-2009). Mwikali (2005) studied the period 1973-2003.

The statistics used in the above studies had an element of revenue collected from Sales tax which was the reigning consumption tax before VAT, in the prior years before 1990. VAT came into force to try and mitigate against the failings of the sales tax. This study differs from the findings of the earlier studies in that it concentrated only on the period after VAT had been introduced that is from 1990 to 2012.

Table 4.2: VAT ELASTICITY (REGRESSION) FY (1995/96 – 2011/12)

Dependent Variable: VAT

Method: Least Squares

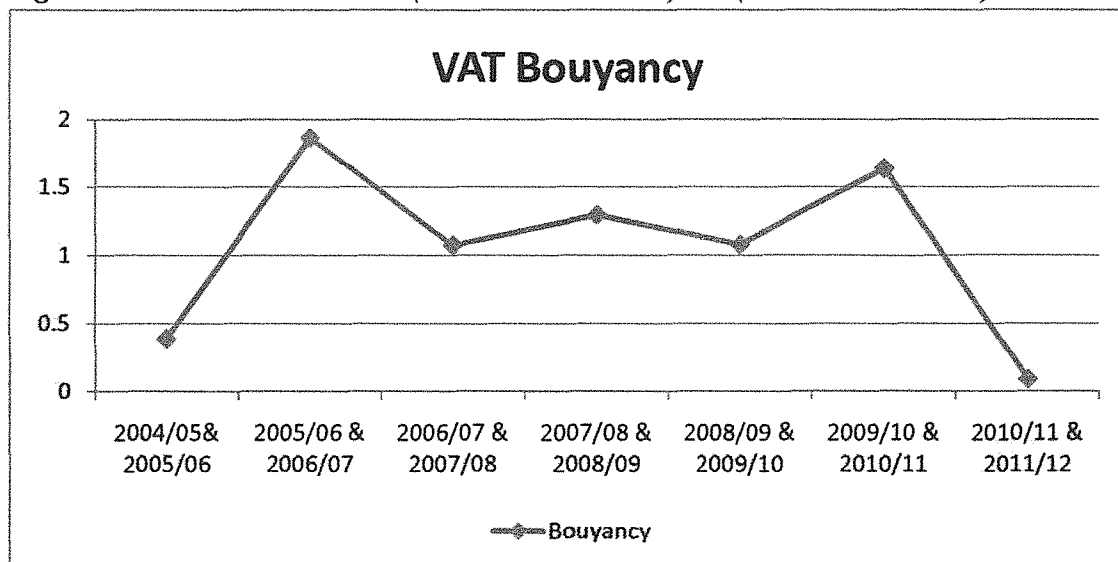
Date: 04/16/13 Time: 08:23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	1.125141	0.042217	26.65161	0.0000
C	4.814442	0.588886	-8.175511	0.0000
R-squared	0.985924	Mean dependent var	10.82713	
Adjusted R-squared	0.984360	S.D. dependent var	0.714174	
S.E. of regression	0.089314	Akaike info criterion	1.861759	
Sum squared resid	0.143585	Schwarz criterion	1.712542	
Log likelihood	22.54847	F-statistic	630.3977	
Durbin-Watson stat	2.180036	Prob(F-statistic)	0.000000	

The analysis above reported VAT to be elastic over the period 1990 - 2012 at 1.125 which was above unit. The regression fit was excellent at an R-squared of 0.97. The standard error of the buoyancy was low at 0.08 and the t-test was significant at the 95% level of confidence. The results of this suggest that VAT is elastic with respect to GDP. This means that a percentage change in GDP would lead to a more than one percentage change in VAT revenue.

A difference between VAT buoyancy and elasticity of 0.037 was attributed to the contribution of discretionary measures as explained in previous studies done. In lieu of the above further regression analysis was conducted on the data with the only difference being that the data for the last 6 years for both VAT and GDP was removed from the series. The results were as follows:

Figure 4.1: VAT BOUYANCY (POINT TO POINT) FY (2004/05 – 2011/12)



The above trend shows a spike upwards in the FYs 2005/06 and 2006/07. One of the most significant reforms executed at the time according to tax officials was the introduction of the withholding VAT system as well as the use of Electronic tax registers (ETR) machines/ Electronic Signature devices (ESD). The withholding VAT system according to tax authorities was able to net revenues from briefcase suppliers who were charging VAT on their products but were not remitting the same to KRA. The rationale behind ETR machines was that they would facilitate information interchange between KRA computer system and that of the taxpayers. This information was particularly helpful to KRA officials during VAT audits as information on sales and tax payable was easily identified from the ETR Z-reports. This resulted in more effective VAT audits as well as an overall improvement on VAT productivity as shown by the graph.

There was a dip in VAT productivity in the FY 2006/07 that remained fairly constant up to the FY 2008/09, although tax officials are not clear on what might have specifically caused this, attention is drawn to the fact that the turnover threshold for mandatory registration of VAT was taken up from 3million to 5million. KRA officials intimated that some significant amounts of VAT revenues were lost after the consequent deregistration of the taxpayers who no longer met the threshold. The increase in productivity in the years 2009/10 was attributed to the adoption of the integrated tax management system (ITMS).

This online VAT system at the time simplified VAT operations for taxpayers and made it easier for them to comply with VAT rules. The systems achievements were; online registration of taxpayers, online filing of returns, easy access to information pertaining to VAT another tax heads and improved interaction between the taxpayer and the tax administration. Over the years however, tax officials cited several major challenges that had eroded the initial achievement of its adoption. The most significant reform that has negatively impacted VAT productivity was the scrapping of the withholding VAT system in the FY 2011/12. VAT collection is said to have taken a nose dive that the Revenue authority is struggling to undo to date. The improvement in VAT after the FY 2011/12 might just be eroded by this latest reform. This is also shown graphically in the above trend where buoyancy takes a turn towards the negative. The officials argue that, though the system was done away with to manage the huge backlog on refunds, solving that one problem had resulted in the loss of VAT revenue from the very suppliers the system sort to net in the first place. The refunds problem should have been tackled from another angle. The zero rating policy which was the cause of the refund claims should have been reviewed instead.

4.3 ANALYSIS OF FACTORS AFFECTING TAXPAYER'S RESPONSE TO THE VAT SYSTEM (APPENDIX 7)

4.3.1 CLOSED ENDED QUESTIONS

The questionnaire sought to establish the factors affecting taxpayer compliance to the VAT system and thereby affecting its productivity. The key factors analysed in the questionnaire include:

- General Questions
- Simplicity and Convenience of VAT
- Equity of VAT tax
- Certainty of VAT
- Role of VAT audits in enhancing compliance

In the analysis of the above factors, several questions were sent to taxpayers in various industries in the country who had knowledge of the VAT system. Each factor is analysed below:

General Questions

This factor was captured in question 1 through to 5: The question was to capture issues as follows:

- 1) Use to which the government puts tax revenue
- 2) Reasons for the imposition of VAT tax
- 3) Transparency in Implementation of VAT laws by KRA
- 4) Communication of reforms to taxpayers
- 5) Corruption in the Tax administration

It was clear that the majority of taxpayers fully understood the uses to which their moneys were used for and that they were beneficial to them. This was supported by the tables showing the tabulated results of questions one through to three, that show the highest percentages to be in the agreement quadrant.

Although the taxpayer was in agreement with the knowledge of the general use of his monies, many admitted to the fact that most of it was also not put into good use because of the element of corruption which was brought out with their agreement to the fact that tax official were easily corruptible, with the highest percentage (66%) of respondents being in agreement. It was found that the tax administration; more so KRA officials came into contact with the taxpayer often while implementing VAT laws; be it during VAT audit, compliance checks or general taxpayer education. This contact made it convenient for the officials to accept bribes and for the taxpayer to give bribes so as to evade penalties of default or consequences of non-compliance. In addressing objective two of this study, the above directly impacts the productivity of VAT as revenues expected from it leak due to corruption. Moreover with most taxpayers lacking confidence in entrusting their monies to tax officials due to misuse of the same, they were more inclined to evade payment of VAT as opposed to complying with its laws, a theory supported by Strauss et al, (2001). The response to question four on the efficiency of communication on VAT reforms was split into half with half of the respondents agreeing that VAT reforms were clearly communicated to them and the other half being in disagreement. Further analysis after cross tabulation of the specific characteristics of taxpayer's, showed that those that had been in business for ten years and over felt that VAT reforms were not effectively communicated to them, whereas taxpayers under 10 years in operation felt that VAT reforms were effectively communicated as shown below.

Table 4.4: Efficiency of VAT communication (Age wise analysis)

	Firms under 10 years in operation				Firms over 10 years in operation		
	Raw Data	Frequency	Percentage		Raw Data	Frequency	Percentage
SD	1	2	4%	SD	1	4	8%
FD	2	11	20%	FD	2	24	45%
N A/D	3	14	25%	N A/D	3	6	11%
FA	4	21	38%	FA	4	17	32%
SA	5	7	13%	SA	5	2	4%

The above affects VAT productivity because adequacy of communication of VAT reforms to taxpayers is very important in enhancing their compliance to the same reforms. With the older firms who mostly also double up as large taxpayer with huge turnovers, pointing to a gap in information receipt, means that their self assessment returns might not be accurate leading to KRA collecting less than it ought to in VAT revenues.

Simplicity and Convenience of VAT

These factors were captured in questions 6 through to 13: The questions were to capture issues as follows:

- 6) Complication of VAT system
- 7) Simplicity of VAT computations
- 8) Assistance to taxpayers on VAT computations by KRA
- 9) Knowledge of the taxpayer on VAT able goods and services
- 10) Simplicity and convenience of the online filing system
- 11, 12 & 13) Convenience of VAT tax system

The questions brought forth the following finding:

The VAT system from the taxpayer's point of view was generally complicated; 51% of the respondents found the VAT system complicated with a further 46% finding the calculations complex. The complexity of the system was found to be in keeping track of which products were VAT able and which ones were not. In addition most respondents who found the system to be complicated sighted issues of vagueness when it comes to calculating the VAT value of a good on which to charge VAT on.

Further analysis on questions 6 and 7 showed that, firms with a smaller turnover found the VAT calculations and the VAT system as a whole to be complicated while a majority of the bigger firms did not find the VAT system complicated. As shown:

Table 4.5: Simplicity of VAT Calculations (Turnover comparison)

Q6	Firms with turnover less than 300M			Q6	Firms with turnover greater than 300M		
	Raw Data		Percentage		Raw Data	Frequency	Percentage
SD	1	SD	29%	SD	1	2	5%
FD	2	FD	26%	FD	2	16	41%
N A/D	3	N A/D	10%	N A/D	3	0	0%
FA	4	FA	26%	FA	4	19	49%
SA	5	SA	9%	SA	5	2	5%
		69	100%			39	100%

The taxpayer felt that the tax administration was not readily available to help in case of computational problems, signifying the disconnect between KRA and the taxpayer as shown in Table 8 where 57% of the respondents were in disagreement over the fact that tax authorities were available to help in the calculation of VAT. The effect of the response was supported by question 9 where 58% of the respondents admitted to not understanding where the different classifications of goods that fell under in the VAT system: i.e. whether VAT able or not. With the tax authorities absent, taxpayers were left to their own devices to deal with the technicalities of the VAT system. More often mistakes made were normally detected during VAT audits which due to the shortage in staff, most taxpayers never got to be audited and hence fewer revenues were collected leading to a reduction of VAT productivity in the country.

A positive attitude towards the VAT system was shown towards the time limit set for calculating and paying in VAT with 59% of the respondents affirming its convenience (Q 11). VAT as previously stated is paid in on the 20th day of the subsequent month to the month of receipt. Consequently 57% of the respondents found the online system of filling VAT returns convenient to use (Q10).

In question 10 however the large percentage of respondents who neither agreed nor disagreed comprised mainly of taxpayers who still used the manual system of filing returns. This showed that a large number of taxpayers particularly small taxpayers, were yet to embrace the online VAT system citing lack of technological know how to operate their systems. Others felt that they would be under KRA s scrutiny a lot should they register, leading to possible implications of tax evasion tactics. Tax evasion as Osoro, (1995) states, directly affects the buoyancy and elasticity of a tax system i.e. its productivity.

Generally taxpayers agreed to the convenience in the mode of paying in VAT (Q 12), which is through a direct deposit into the designated VAT collection account in designated banks. However 35% of the respondents feel that more banks ought to be availed as choices of paying in VAT.

Equity of VAT system

This factor was captured in questions 14 through to 17: The questions were to capture issues as follows:

14 & 15) Equity of the VAT system

16 & 17) Fairness of VAT law violations penalties

The above questions yielded positive results as to the general fairness of the VAT system on all taxpayers as shown in question 14, 15 and 16. The question as to the fairness in administering of penalties on VAT law violations saw the larger percentage disagreeing (Q 17). This once again pointed to the corruption allegations in tax administration as the taxpayers felt that there was no equity when it came to which taxpayers were brought to the book and which ones were not.

Certainty of VAT system and Role of VAT audits

These factors were captured in questions 18 through to 26: The questions were to capture issues as follows:

- 18) Certainty of VAT computations
- 19) Certainty of VAT pay in timing
- 20) Taxpayer education on the VAT system
- 21) Certainty of VAT penalties
- 22, 23, 24, 25 & 26) Efficiency of VAT audits

The questions yielded the following results:

A good portion of taxpayers (36%) found VAT payable calculations complicated, the bigger portion of these were small taxpayers who as intimated had no money to hire tax agents. This was puzzling as the question to the adequacy of education received on the VAT system from KRA, saw a bigger percentage agreeing to the fact that it is adequate (Q 20). However it could be argued that the 33% of respondents that disagreed was because of the gap in knowledge in doing VAT calculations.

The questions pertaining to the efficiency of VAT audits generally show a positive outlook as to their effectiveness; 85% of all respondents agreed to the fact that VAT audits did increase their levels of compliance (Q24). This fact was attributed to the fact that VAT audits eliminated any computational confusion the firms might have had (Q 23) and that VAT audit reports were communicated clearly to them to avert any disputes as to the factors raised (Q 26).

However, there was some disparity as to the regularity of VAT audits being carried out (Q 22). 51% of the respondents agreed to the fact that VAT audits were conducted regularly on them whilst 39 % felt that this was not the case. Additional analysis showed that the 39% consisted of small taxpayers who fell in the category of turnovers below 400Million. This in itself affirmed the gap between the small taxpayer and the tax administration.

(Q 25) that dealt with the equity element in carrying out audits on taxpayers saw 37% of the respondents disagreeing. The large taxpayers felt that they were more often the target of VAT audits as opposed to the smaller taxpayers, a fact that did not sit well with them.

4.3.2 Challenges faced in understanding the VAT system

Various answers were given towards this particular question. The most common answer that cut across most taxpayers in all industries was the vagueness of the VAT able lists of goods and services that were provided in the VAT Act. The VAT Act has outlined various goods and services that are exempt goods (2nd Schedule) and Zero rated (5th Schedule) what it did not provide for was a list of the VAT able goods under the current general rate of 16%. The operating assumption was that what was left out of the specified schedules was VAT able at the general rate. This ambiguity of what was VAT able and what was not, led to computational errors stemming from misclassification of goods. This consequently affected revenue collected from VAT. In connection with the above most of the respondents felt that there was an information gap pertaining to how the VAT system worked that they felt should be filled by the tax administration.

In addition to the above some of the other reasons sighted were in connection with the complexity of doing the calculations which will be expounded later under the comparison with other tax heads. Other computational difficulties included Challenges in computing value added cost to a product, and the determination of the VAT value to be charged VAT on.

Taxpayers from smaller firms in terms of turnover, found the KRA portal for filing online returns not user friendly hence the complexity of computing VAT payable. The wrong self assessments being filed as well as the risk of audit being low, contributed to VAT revenue leakages hence affecting its productivity.

4.3.3 Compliance costs incurred by taxpayers

The key compliance cost that was unanimous among most taxpayers regardless of size or industry was the cost associated with the engagement of tax agents. For the bigger firms in terms of turnover, the cost was seen as necessary for purposes of tax planning.

This was not the case with smaller firms who saw the cost as deeply eating into their profits and hence affects their compliance attitude towards the VAT system. Other costs sighted were in relation to stationary costs. Examples given here were copies of invoices during KRA audits as well as copies of previously filed returns that the taxpayer had to avail to KRA officials. Time costs sighted were as a result of system downtimes which were frequent during days close to the VAT due date for online Return filers and time wasted on long queues for manual VAT return filers.

The online system of filing returns had also caused intrinsic compliance costs to the taxpayer, namely costs arising from maintaining their systems; accounting and internet systems as well as costs of data band width all in an effort to comply with the online tax system of VAT

Psychological cost; Stress, anxiety and frustrations of trying to comply with VAT obligations were also sighted as compliance costs.

In answering objective two of this study it was found that, great compliance costs incurred by the taxpayers had affected their adherence to VAT laws leading to serious revenue leakage and VAT tax evasion. This had greatly affected the productivity of VAT in Kenya.

4.3.4 Effect of VAT reforms on taxpayer's firm

The major observation that was made under this question was that most taxpayers especially from the small size firms were not conversant with the various reforms that had been made on the VAT system over the years. The practice that was currently in use was normally to leave tax matters to tax agents who possessed the knowledge on reforms. In light of this it was found that taxpayers were more aware of reforms that required them to acquire new assets in respect to VAT compliance; ETR machines, or the use of online filing as opposed to reforms done on the VAT Act that would affect the calculations of VAT and in general the law governing VAT collections.

All in all the respondents appreciated the introduction of the ETR machines more so because it simplified VAT calculation for them.

Online filing of returns minimized costs incurred in doing manual returns in terms of proper time management, however the same system was found to have increased penalties due to the slowness of the systems, or downtimes that led to penalties.

Reforms on the general rate of VAT currently at 16%, was felt to be too high which resulted in high prices of final goods. Although the cost was pushed to the consumers and not borne by the supplier, taxpayers feel that the high price of products undercut their market share and affected their competitive advantage. This also affects the production size of products as the cost of inputs for the same increased.

4.3.5 Comparison of VAT and other tax heads

The comparison between VAT and PAYE and or Corporation tax was done because the latter fell in a different tax type category as opposed to VAT. Both corporation tax and PAYE are direct taxes that are deducted at source from income earned by an individual (PAYE on one's salary) or a firm (Corporation tax on a firm's profits). VAT on the other hand is an indirect tax charged on consumption.

The findings on this particular question were that PAYE and Corporation tax laws were easier to comply with as they did not involve complex calculations in comparison to VAT. The two simply involved the application of predetermined ratios to income earned and did not require prior knowledge of what should be VAT able and what shouldn't. Record keeping for the PAYE and Corporation taxes according to taxpayers was simpler as the normal accounting system was all that was needed to determine what needed to be paid. The need for tax agents for PAYE and corporation tax was minimal as well because they were simple taxes to calculate hence reducing compliance costs on the taxpayer.

4.4 ANALYSIS OF FACTORS AFFECTING TAX ADMINISTRATION OF THE VAT SYSTEM IN KENYA (APPENDIX 8)

4.4.1 ANALYSIS OF THE CLOSED ENDED QUESTIONS

The questionnaire administered to KRA officials, sought to establish the factors affecting the administration of VAT IN Kenya. The key factors analysed in the questionnaire include:

- General Questions
- Tax administration (KRA) and the taxpayer
- Equity of VAT tax
- Certainty and convenience of VAT
- Role of VAT audits in enhancing compliance
- Productivity and economy of VAT

General Questions

This factor was captured in the question 1 through to 5: The questions were to capture issues as follows:

- 1) Significance of VAT reforms
- 2) Communication of VAT reforms to employees
- 3) Successful implementation of the VAT reforms
- 4) Necessity of the VAT reforms
- 5) Adequacy of training to employees in VAT reforms

The findings on the above questions were: The respondents were unanimous in agreeing to the fact that the VAT system had undergone significant reforms over the years. Some of the examples sighted were the introduction of ETR machines and the scrapping of the withholding VAT system. The respondents were in agreement as to the efficient communication of reforms to staff members with only 18% of the respondents disagreeing to the fact. However, even though the communication to staff was clear, 82% (Q 3) of the respondents felt that the reforms had not been successfully implemented resulting in negligible growth in VAT revenues.

Of note was that 55% of the respondents felt that KRA staff did not receive adequate training when it came to VAT reforms. This greatly affected their ability to enforce VAT reforms as well as carry out effective VAT audits, a factor that KRA administration felt that taxpayers took advantage of.

Tax administration (KRA) and the Taxpayer

This factor was captured in the question 6 through to 13: The questions were to capture issues as follows:

- 6) Communication of changes to VAT to taxpayers
- 7) Adequacy of taxpayer education particularly in VAT to taxpayers
- 8,9,10,& 11) Efficiency of VAT audits
- 12) Updating of tax register
- 13) Simplicity of filing returns

The findings on the above questions were:

KRA officials generally felt that the taxpayer was adequately communicated with. 64% of the respondents agreed to the fact that channels of communication with the taxpayer pertaining to VAT had been set up and were being utilized. This was confirmed by 73% of the respondents who felt that there was adequate taxpayer education on the VAT system. This was in contrast with 38% of the taxpayer respondents who felt that KRA officials ignored the small taxpayer.

On the regularity of VAT audits, 55% of the respondents disagreed with the fact that VAT audits were carried out regularly. Those who disagreed were Tax officials from the medium and small taxpayer division, who sighted lack of resources and proper records as a factor of not being able to cover a large portion of taxpayers under them. Those from the large taxpayer's office however agreed to regularity of VAT audits on their taxpayers who total 1,100 in number. This affirmed the fact that concentration of VAT audits was on the large taxpayers only as compared to medium and small taxpayers. However optimism was shown as to the overall effect of the audits in enhancing taxpayer compliance and as a measure of deterring tax evasion.

KRA officials admitted to the fact that the online system of filing returns had not helped the taxpayer in complying fully with VAT laws. The hitches in the system together with its complexity made it difficult for taxpayers to comply. To this end KRA had embarked on revamping the system to the new ITAX system which according to them would be more user friendly to the taxpayer. The costs associated with collection of VAT were uncertain. 73% and 82% of respondents could not answer with any certainty as to whether VAT collection costs were measurable. This element is what makes the use of VAT buoyancy as a measure of VAT productivity most efficient as it does not require a comparison between input and out of VAT which cannot be ascertained with precision.

4.4.2 Challenges of VAT system implementation

It was found that one of the problems faced by the tax administration was adequacy of resources, both man power and the funds to facilitate their operations. The auditor general in the financial year 2011-12 in his comments on the audit conducted on KRA stated that the Authority was facing tough times ahead because of inadequate funding. Ordinarily KRA was meant to receive 2% on all monies collected by them as their agency fee from treasury. This has not been the case, as they have been receiving less than the 2% stipulated in the ACT that forms the body. Lack of sufficient funding hampered training programs for the staff who through the trainings were meant to be kept abreast of the technological and economical changes surrounding their client; the taxpayer. This also had affected the acquisition of various assets needed to facilitate revenue collection and monitoring; transport related issues to a taxpayer's premises as well as for patrols was sighted as a problem that affected their morale to work and collect VAT revenues

Some technical issues had also affected the implementation of the VAT system. The VAT bill 2012 sort to bring some privileged bodies as well as basic goods to the general rate VAT status to increase the revenues collected from VAT. The Bill had received so much resistance several interest groups and had not been passed into law. Abuse of exemptions for several groups had also led to the decline in VAT collections as the goods were diverted from the purpose for which they were intended for and found their way into the market with no VAT paid on them, causing VAT revenue leakages.

4.4.3 Measures aimed at reducing compliance costs to taxpayers

The major reform that KRA had put in place to help taxpayers lower their compliance costs was the automation of the VAT system. This helped in registration and filing of VAT returns. The process had greatly reduced the need for paper work and also saved on time wasted in queuing for registration.

However according to the taxpayers the systems experiences serious downtimes especially near the due date that leads to late filing of returns by the taxpayer hence penalties for the same. KRA officials admitted to fact that the system had a few challenges and to that end the authority had embarked on creating a new system ITAX that would build on the shortcomings of the old system (ITMS). Data migration and pilot programs on a few select taxpayers were ongoing for possible rolling out of the project in the next financial year.

KRA in an attempt to improve taxpayer education on tax matters had embarked on weekly tax clinics held at time towers. Other tax clinics were held in different areas in the country. The scope of this effort however was affected by lack of adequate funds for effective coverage of taxpayers in the country.

4.4.4 Effect of VAT reforms on revenue Collection

The automation of the VAT system had greatly increased the number of taxpayers' registration for VAT purposes. The end result of this was both positive and negative. This was because in as much as the new system had netted in many VAT taxpayers, information on the system register could not be relied upon due to erroneous data fed in by taxpayers. The system also held a huge number of dormant taxpayers who never de-registered from the VAT system once they were no longer eligible for VAT purposes. This affected the statistics on the total debt owed by taxpayers to KRA because by virtue of their dormancy, the penalties and interest captured by the system due to non compliance in filing of returns was bad debt, but the system has no way of singling out the dormant taxpayers. To this end KRA has a huge data base that cannot be relied on fully leading to time wastage in data cleaning.

The introduction of Electronic tax registers and Electronic signature devices in the FY 2005/2006 led to an increase in the revenues collected from VAT. However with time, scrupulous taxpayers were able to bypass the system by holding more than one ETR machine, keeping two sets of accounts where some sales were made without the issuance of an ETR/ESD generated machine or tampering with the programming of the software. KRA could not give exact figures of how much is lost everyday due to ETR/ESD fraud but this has greatly affected the productivity of VAT due to reduced revenues.

One of the reforms that had greatly impacted the performance of VAT was the introduction and subsequent scrapping of the Withholding VAT system. Increase of VAT collections was experienced from 2004-2005 when certain top taxpayers and government ministries were appointed as agents to withhold the VAT element in the sale of goods made to them by supplies. This helped net briefcase suppliers who made millions in turnover on sale of taxable goods but the monies were never remitted to KRA as the Authority had no way of netting them. The WVAT system was scrapped in the FY 2010/2011 and this greatly saw a sharp decrease in collections from VAT. The reasons sighted were increase in refunds backlog brought about by the system. The resulting effect of this reform was that there was no system to net the VAT evaders or briefcase suppliers anymore.

4.4.5 Government reliance on particular tax heads

The Kenyan tax system relied more on PAYE and Corporation tax as revenues from these two tax heads exceeded those of VAT. However KRA officials reiterated that with proper administration of VAT, the tax had more potential in raising more revenue than the other tax heads. This was because it had a wider tax base on as it was predicated on consumption as opposed to income.

4.4.6 Challenges in maintenance of VAT database

A lot of time was wasted in cleaning up of tax payer's ledger details because of data entry errors that occurred during the manual capture of the details in a VAT return. This led to faulty information being used in profiling taxpayers for audits. The consequence of which was targeting compliant taxpayers who yielded very little after VAT audits.

Falsification of particulars by taxpayers affected the database's reliability element. Registration of one off taxpayers who only registered so as to transact with the government after which they become dormant and did not deregister also led wrong statistics in the system.

4.4.7 Challenges in carrying out VAT audits

Most of the challenges have been mentioned above: Lack of adequate funding to facilitate VAT collection in meeting administrative costs. KRA members of staff are not adequately trained on the changes affecting their clientele. When the staff cannot comfortably interrogate a taxpayers system, this breeds adequate ground for tax evasion.

Other issues encountered would be delaying tactics employed by taxpayers in provision of their records. With a database that was not very efficient KRA relied on the cooperation of taxpayers to produce the relevant records that would facilitate the audit. More often than not delays were caused by evasive taxpayers who become openly hostile when pushed. The end result was normally termination of the audits or litigation that was in itself a cost to the administration.

4.4.8 Challenges in enforcing VAT penalties

In addition to the open hostility and litigation costs mentioned above, cases arose where the taxpayer in question was declared bankrupt and could therefore not pay the monies required. This was normally written off as an irrecoverable debt.

The taxpayers normally applied for waivers on penalties and interests levied on VAT payable the success of which set a precedent for them to evade tax knowing they had the option to apply for waivers should they be caught again.

CHAPTER 5: CONCLUSION

5.1 Introduction

This chapter presents a summary of the study. It highlights the objectives and methods used in analyzing the objectives. It offers a summary of findings as well as key recommendations drawn from the conclusions of the study. Lastly it explores the various limitations of the study and gives ideas for further areas of research.

5.2 Summary of Study Objectives and Methods

This study set out to determine VAT's Productivity in Kenya and the factors affecting it. Various factors were explored using both primary and secondary data and the conclusions made are highlighted in this chapter. In addressing objective one, regression analysis was used to measure VAT productivity. In addressing objective two, the factors affecting VAT productivity were captured through questionnaires sent out to both taxpayers and the tax administration that is represented by KRA in this study.

5.3 Summary of Findings

VAT tax under the period in review was found to be responsive to changes in National income. This contradicts the findings of past studies done (Kinyanjui & Moyi, 2003; Karingi & Wanjala, 2005; Oketch & Mburu, 2011; Kotut & Menjo, 2012). Further analysis however shows that VAT was rigid up to the FY 2004/05 which is in line with previous studies after which through various identifiable discretionary measures; its buoyancy has improved in the FY 2005/06 to 2011/12. This improvement however took a hit in the year 2011/12 which tax authorities attributed to the scrapping of withholding VAT. This one reform has largely and negatively impacted the collection of VAT revenues.

Several factors were found to be affecting the productivity of VAT as a source of revenue in the country. This study concentrated on the factors affecting the key players in the VAT system i.e. the Taxpayer and the Tax administration

Factors that affected the compliance levels of a taxpayer towards VAT were mainly Compliance costs and their general attitude towards the VAT system. Compliance costs

were clearly brought out in the previous chapter with the main ones being the cost of tax agents, time costs, psychological costs and some internal costs. With taxpayers facing huge compliance costs, the idea of evasion seemed like an easier way out hence affecting VAT productivity due to reduced collection as a result of tax evasion. Feinstein (1919) emphasized that the most important cost of tax evasion is loss of government revenue; in this case, loss of VAT revenues. KRA plays a very big role in ensuring Taxpayer compliance with VAT. As the Authority moves away from revenue focus to being more taxpayer oriented, one of the major areas it needed to focus on was minimizing Compliance costs to the taxpayer as these were the major constraints that made tax evasion look lucrative.

According to Ariff et al. (1997) in their analysis of compliance costs, they cited size of the company as a factor that influenced the compliance costs incurred by taxpayers. From the analysis above the small taxpayer's major problem was in computation of VAT payable, which resulted in him opting seeking help from expensive tax agents. The large taxpayers on the other hand incurred the agency costs for purposes of tax planning but welcomed this as a necessary cost because it saved them money through the tax planning.

KRA is in the process of upgrading its online portal to ITAX system. This system as informed by the IT department, builds on the weaknesses of the already existing ITMS system. The system is said to be more user friendly and a pilot program has been set in motion to test the system out using a few taxpayers, before it is rolled out to the general populace. This is a major step towards improving the authority's services to the taxpayer, but without proper taxpayer education on how to use the system then the issues that plagued online services to taxpayers will continue to hamper taxpayer compliance towards the VAT system. With the successful implementation of the above, compliance costs to the taxpayer will be greatly reduced leading to enhanced revenue collection from the taxpayers that will improve the overall productivity of VAT in Kenya.

Taxpayer's perception and attitudes towards the tax system greatly influenced a taxpayer's willingness to comply with VAT laws. With the current system of self assessment where the government largely relies on a taxpayer's good will and sense of patriotism to declare the correct VAT payable, perception of the taxpayer's towards the use of his money paid in as tax, and towards the tax administration was key in ensuring that they did what was right. From the findings chapter we got to see that the taxpayer generally did not trust the tax administration to put into good use VAT paid in. Whereas KRA's mandate was only to collect the monies, the taxpayer viewed them as a front to the government and with the numerous allegations of how easily tax officials are corrupted, the taxpayer does not trust the system. Strauss et al. (2001) in their paper highlighted the importance of taxpayer confidence in tax officials as being one of the elements that affected the compliance levels of taxpayers. In Kenya that trust is nearly eroded and as such the taxpayer does not feel compelled to comply with VAT laws hence a reduction in VAT productivity in Kenya.

Nellen (2006) reiterates that for any given tax to be workable then the principles of a good tax system ought to be followed in structuring it. The study sort both taxpayers' and the tax administrations perception as to whether they both think that the VAT system met the characteristics of a workable tax system. As shown in the analysis in chapter four, a significant percentage of taxpayers found the VAT system to be complicated particularly in computing. This element violated the principle of simplicity and certainty for the taxpayer. Computation of VAT payable is very crucial in determining revenues collected from it. A taxpayer who could effectively compute VAT payable in assessing himself would probably under declare his liability or wrongly misclassify goods leading to lesser amounts being paid in. This was viewed as an avenue for VAT revenue leakage that affected its productivity. As shown from the analysis in chapter 4, the taxpayers and tax administration both felt that the coverage of VAT audits was concentrated on the large taxpayers who already feel harassed by the number of audits conducted on them. With the respondents agreeing to the fact that audits enhanced compliance and removed any doubt as to the VAT system. The reality however was that auditing the same taxpayer regularly normally yielded little or no tax. This according to KRA officials was part of the reason why the audit function in KRA had not yielded the revenues expected from it.

5.4 Recommendations

Some of the initiatives KRA needs to concentrate on are: Education of taxpayers to eliminate the need for tax agents and reduction of psychological costs more so, the education should be largely directed to the medium and small taxpayer who feel that the costs of taking on tax agents greatly eats into their profits resulting into them taking the easier way out; tax evasion.

KRA consequently needs to improve on its online interactive system with taxpayers. Though a major step in that direction has been undertaken with the pilot ITAX system, an interview with some of the taxpayers chosen for the pilot program say it is more complex than the ITMS system. The taxman however says that the new system will make reporting and accounting for revenues collected much easier. As much as KRA is improving its own internal systems of reporting, focus needs to shift from self to its clientele: The taxpayer. Systems constituted should be user friendly to taxpayers as this is the only way that compliance with VAT laws by taxpayers will be enhanced hence improvement of VAT collections and consequently its productivity.

KRA consequently has major organizational and structural measures that need to be put in place to enhance the collection efficiency of VAT hence increase its productivity. Decentralization of collection points both the designated banks of collection and physical location of KRA offices. This majorly affects taxpayers who do not operate near major towns where KRA offices are set up. Taxpayers seem to be optimistic that with the new Governance structure in place, KRA would consider having offices in all the counties a view that the administration though admitting to not be practical is still thinking of a way to make it happen. This is essentially important because it makes the taxman available to the taxpayer in case of any ambiguities in understanding the VAT system. In addition to the above it increases the threat of audit which according to Aizenman et al. (2006) helps improve on the level of a taxpayer's compliance to VAT.

KRA needs to increase the number of banks that are available to taxpayers for purposes of depositing VAT. It should consider banks with a wide range outreach in the country for example. Equity bank. This will lessen the burden of having to look for the specified

few banks for purposes of complying with VAT rules to a taxpayer. This again connects with KRA's role in lessening the Compliance costs to taxpayers.

KRA's audit focus needs to shift from just large taxpayers and trickle down to all taxpayers. The tax administration admits to the fact that their system of singling out the large taxpayers based on turnover is not fool proof and they might not be monitoring some key taxpayers who might yield more VAT should an audit on them be carried out. The tax administration needs to pay attention to the small taxpayer since additional VAT revenues from the large taxpayers are almost running out as these taxpayers are near fully compliant.

Corruption allegations on KRA operations have eroded the taxpayer's trust in the ability of tax officials in handling their money, making it easier for them to evade paying in VAT or evading their tax responsibility by bribing officials. This has greatly affected VAT collection. KRA needs to put in place measures to do away with corruption within the organization.

Treasury might want to consider paying KRA its full 2% agency fee so that the authority can effectively carry out its mandate without dipping into its reserves and stretching its resources thin. Currently the authority is faced with logistical issues of transportation and mapping out of the whereabouts of the very taxpayers it's meant to be monitoring. The monies can also go into the employment of more staff so as to improve on the taxpayer; tax official ration for easier monitoring of the former. Lastly with better pay by the authority, tax official may not be too vulnerable to bribery and corruption as a whole.

Tax legislators need to review the decision to do away with Withholding VAT system. The monies lost that were netted by this system were significant. The only safe way to deal with VAT refunds backlog is by review of the zero rating element that is largely abused by taxpayers. Tax officials have discovered that whereas zero rating of commodities for the few select bodies was done in good faith, abuse of the practice has made it a serious avenue of VAT revenue leakages. The VAT BILL 2012 sought to bring some of the zero rated products into the general rate, this will go a long way into improving VAT revenue collection once passed and reduce VAT refunds. It is my view

that the bill should be passed. Consequently the Bill seeks to introduce the concept of GPRS ETR machines that will relay information on sales made by a supplier in real time. This will greatly improve the fight against ETR fraud that leaks VAT revenues.

The VAT system in light of the findings needs to be vetted against the principles of a workable tax system. In doing this VAT can be re-engineered to become as productive as earlier envisioned. KRA however needs to be more taxpayer oriented in its reforms and in this way taxpayer compliance to VAT laws will be enhanced.

5.5 Limitations

Taxation is a sensitive issue and as such the level of honesty among the respondents was flawed and most of the respondents especially the taxpayers were unresponsive to the questions. This in itself was an indication that the perception on taxation in the public needs to be worked on.

5.6 Suggestions for further research

Tax evasion among taxpayers in regards to VAT not only stemmed from computational challenges and lack of threat of audit but also on the premise that VAT affected a suppliers pricing competitive strategy. Further research needs to be done on how the VAT system affects GDP as opposed to the analysis in this study. Tax evasion affects National income as it affects government consumption. If the impact of VAT tax evasion is found to severely affect our GDP levels then the existence of the VAT system will need to be seriously thought out. Furthermore the effects of the underground activity on VAT revenues needs to be assessed as this could be affecting its productivity.

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APPENDIX 1: Canons of a good tax system

	PRINCIPLE	EXPLANATION
1	CANON OF EQUITY	According to this principle, every person should pay to the government depending upon his ability to pay. The rich class people should pay higher taxes to the government, because without the protection of the government authorities (Police, Defense, etc.) they could not have earned and enjoyed their income. main argument is that the taxes should be proportional to income
2	CANON OF CERTAINTY	According to this principle, the tax which an individual has to pay should be certain, not arbitrary. The tax payer should know in advance how much tax he has to pay, at what time he has to pay the tax, and in what form the tax is to be paid to the government also the government should be certain about the amount that will be collected by way of tax.
3	CANON OF CONVENIENCE	This canon takes into consideration the interest of the taxpayer in light of payment of tax. It emphasizes that the mode and timings of tax payment should be, so far as possible, convenient to the tax-payer. This canon recommends that unnecessary trouble to the tax-payer should be avoided; otherwise various ill-effects may result.
4	CANON OF ECONOMY	The cost of tax collection should be lower than the amount of tax collected. It may not serve any purpose, if the taxes imposed are widespread but are difficult to administer. Therefore, it would make no sense to impose certain taxes, if it is difficult to administer.
	OTHERS	
5	CANON OF PRODUCTIVITY	It is also known as the canon of fiscal adequacy. The tax system should be able to yield enough revenue for the treasury and the government should have no need to resort to deficit financing. This is a good principle to follow in a developing economy.
6	CANON OF ELASTICITY	According to this canon, every tax imposed by the government should be elastic in nature. In other words, the income from tax should be capable of increasing or decreasing according to the requirement of the country. For example, if the government needs more income at time of crisis, the tax should be capable of yielding more income through increase in its rate.
7	CANON OF FLEXIBILITY	It should be easily possible for the authorities to revise the tax structure both with respect to its coverage and rates, to suit the changing requirements of the economy. With changing time and conditions the tax system needs to be changed without much difficulty. The tax system must be flexible and not rigid
8	CANON OF SIMPLICITY	The tax system should not be complicated. That makes it difficult to understand and administer and results in problems of interpretation and disputes and could lead to tax evasion.
9	CANON OF DIVERSITY	This principle states that the government should collect taxes from different sources rather than concentrating on a single source of tax. It is not advisable for the government to depend upon a single source of tax, it may result in inequity to the certain section of the society; uncertainty for the government to raise funds. If the tax revenue comes from diversified source, then any reduction in tax revenue on account of any one cause is bound to be small

APPENDIX 2: VAT reforms

VAT rate reforms 1990/91 to 2011/12

Year	General rate in %	Other rates in %
1990/91	18	0,5, 25,35,40,45,55,70,80,100,150
1991/92	18	0,25,35,50,75,100
1992/93	18	0,5,30,50,75
1993/94	18	0,5,40
1994/95	18	0,5,30
1995/96	15	0,6
1996/97	15	0,8
1997/98	15	0,10
1998/99	16	0,12
1999/00	15	0,13
2000/01	18	0,16
2001/02	18	0,16
2002/03	18	0,16
2003/04	16	0,14
2004/05	16	0,14
2005/06	16	0,14
2006/07	16	0,14
2007/08	16	0,14
2008/09	16	0,12
2009/10	16	0,12
2010/11	16	0,12
2011/12	16	0,12

Financial year	Reforms	Rationale
2005/06	Definition of terms e.g. register	1.) To align the Act to the other revenue Acts 2.) To do away with ambiguity in law hence curb revenue leakage, and taxpayer uncertainty
	Introduction of Electronic tax devices	Part of the reform and modernization programme, facilitation of information interchange between KRA computer system and that of the private/public sector institutions
	Zero rating of basic commodities e.g. Milk, Sanitary towels	To make the price of basic commodities cheaper by removing the inbuilt VAT
	Provision of penalties on VAT withholding agents	To deter non compliance of the same
2006/07	Inclusion of excise duty on the taxable value of locally manufactured excisable goods	The law was silent as to treatment of the same
	Penalties on fraudulent refund claims	Increase in fraudulent claims and no provision of how to deal with the same in the Act
	Change in tariff for goods and services; treatment and supply of water, wheat	To make the price of basic commodities cheaper by removing the inbuilt VAT
	Change of threshold for mandatory registration of VAT from KES. 3M turnover to KES. 5M turnover	In light of the introduction of the Turnover Tax
	Clause on recovery of costs of Purchase and Installation of ETR machines	
	Tax receipts mandatory for the claim of input VAT deduction	
2007/08	Definition of terms e.g. Building	To do away with ambiguity in law hence curb revenue leakage, and taxpayer uncertainty
	Deletion of compensation due to loss of taxable goods from the word supply	Enforcing the equitability of taxation
	Empowerment of the Commissioner to freeze the funds of a person suspected of tax evasion	To prevent the person from interfering with the funds if not frozen
	Realization of a security once a registered person has failed to pay tax due.	
	Repeal of the fourth schedule that had register able goods	Facilitate the implementation of TOT
	Various amendments to the schedules	

Financial year	Reforms	Rationale
2008/09	Definition of terms e.g. Hotels and residential buildings	To do away with ambiguity in law hence curb revenue leakage
	The deletion of physical capital investment	To guard against revenue leakages and allow the principles of input-output VAT operate
	Increase in amount of interest waiver from KES 500,000 to KES 1.5 M, capping of interest charged on unpaid tax to 100% of tax due	Equity of tax
	Various amendments to the schedules	
2009/10	Definition of terms e.g Transit	To do away with ambiguity in law hence curb revenue leakage, and taxpayer uncertainty
	Extension of the period to claim relief on stock in trade; 30 days to 6 months	The previous period was not adequate enough for the same
	Immediate issuance of withholding VAT certificates at the payment time	This was to avoid hoarding of the same by the agents making it difficult for the supplier to offset the tax from tax payable
	Exemption of Mobile phones	Make them less expensive and also a recognition of the fact that they are necessary inputs for VAT on airtime
	Scrapping of VAT numbers	Simplification of registration for tax obligations. Less documentation
	Various amendments to the schedules; zero rating of grain silos	
2010/11	Extension of claim of input tax from 12 months to 24 months	Previous period was not adequate
	Reduction of tax withheld by the Ministry of roads to 50% of that tax.	Assumption here was that those who supply to the ministry do not supply to anyone one hence no output tax resulting in them being huge refund claimants
	Changes to use of online services	Promote ease of use of online services for easier transacting
	Various amendments to the schedules; zero rating of grain silos	
2011/12	Scrapping of Withholding VAT	Minimize on refund claims
	Various amendments to the schedules; zero rating of grain silos	
2012/13	Use of GPRS enabled ETR machines	Effective monitoring of the use of ETR machines as well as a reduction of the paper work that has to be submitted to the Authority
	Exemption from VAT of all materials sourced by the Rural electrification Authority	Enhancement of electricity access to rural Kenya

APPENDIX 3: VAT BILL 2012

VAT BILL 2012 REFORMS
Reforms
Scrapping of VAT remissions
Reduction of time limit for deduction of input tax from 12 months to 3 months
Introduction of Place of supply
Appointment of tax representative by non residents or by commissioner to facilitate tax collection from supplies made to nonresident Persons
Widening of the tax base to net e-commerce undertaken by non non-residents without a fixed place of business in Kenya e.g. web hosting
Time capping for the commissioner in dispute resolution with taxpayers.
Two rates of tax ; 0% and 16% with 12% being scrapped with the possibility of the standard rate going up to 25% under the Minister's discretion
Goods and services shifting from exempt status to taxable at 16%
Goods: Cut Flowers, Wood, Charcoal, Helicopters, Aircrafts
Services; Postal services, Management of unit trusts, Entertainment by artists, Hiring leasing and chattering of aircrafts and helicopters, Tour operations and travel agency services
Goods and services shifting from zero rated status to taxable at 16%
Essential goods; Milk, Maize and wheat flour, Ordinary bread, Infant formula, Computer software, Sanitary towels Medical dressings, Newspapers and Journals, Exercise and printed books, cinematographic cameras and Projectors.
Services; Electrical energy to households, Services in respect of goods in transit, Landing and parking services for aircrafts, water drilling services, services to film producers
Goods shifting from zero rated status to Exempt
Electrical and mechanical appliances e.g. generators, kerosene type of jet fuel, mosquito nets.

APPENDIX 4: Tax Payers Questionnaire

The following questionnaire is designed to evaluate efficiency of the Value Added Tax (VAT) system of taxation in Kenya.

PART A

Tick as appropriate

1. Number of years that your company has been in operation?

Less than 5 years

☐

5- 10 years

☐

10-15 years

☐

Over 15 years

☐

2. Please indicate the business type that your company belongs to:

AGRICULTURAL	
WHOLESALE	
FINANCIAL INSTITUTION	
MANUFACTURERS	
CONSTRUCTION	
OILS AND TRANSPORT	
SERVICES	

3. Please indicate below the level of turnover in Kenya shillings that your company attained in the last financial year.

Less than 100,000,000	
100,000,001 - 200,000,000	
200,000,001 - 300,000,000	
300,000,001 - 400,000,000	
400,000,001 - 500,000,000	
500,000,001 and over	

PART B

For each question indicate the extent to which you agree or disagree by marking the relevant number below the question that best describes your degree of agreement or disagreement as explained below.:

Circle: 1 if you strongly disagree

2 if you fairly disagree

3 if you neither agree nor disagree

4 if you fairly agree

5 if you strongly agree

GENERAL QUESTIONS	1	2	3	4	5
1. Uses to which the government puts tax revenue are beneficial to taxpayers					
2. Reasons for which the Government imposes VAT are well known					
3. KRA implements tax laws in a fair, reliable and transparent manner?					
4. Any reforms to the VAT system are clearly communicated to taxpayers					
5. Tax officials are easily corruptible					

SIMPLICITY AND CONVINIENCE OF VAT	1	2	3	4	5
6. The VAT tax system is not complicated					
7. Computation of payable VAT is simple					
8. Tax authorities are readily available to help in case of any VAT computation problems					
9. VAT able goods and Services are well known					
10. The online system for filing VAT returns is simple and convenient to use					
11. The time provided for calculating and paying in VAT is convenient					
12. The mode of payment for VAT is convenient					
13. The banks provided for paying in of VAT are conveniently placed					

EQUITY OF VAT TAX	1	2	3	4	5
14. The VAT system is fair to all taxpayers					
15. VAT addresses the equity principle of proportionality of tax to income					
16. Penalties for VAT law violations are fair					
17. Penalties for VAT law violation are administered fairly to all defaulters					

CERTAINTY OF VAT AND ROLE OF VAT AUDITS	1	2	3	4	5
18. VAT payable computations are certain not arbitrary					
19. VAT pay in time is certain					
20. KRA adequately educates taxpayers on the VAT system					
21. Penalties for VAT law violations are known.					
22. VAT audits are carried out regularly by KRA					
23. VAT audits eliminate any computational confusion of VAT payable					
24. VAT audits enhance compliance					
25. VAT audits are carried out fairly among all taxpayers					
26. VAT audit reports are communicated clearly to the taxpayers to avert disputes					

PART C

For each question write a brief explanation that best explains your views on the question raised.

1. What are the challenges faced by the firm in understanding how VAT works and more so its computation?

2. What compliance costs do you incur in relation to complying with VAT laws?

3. What measures can KRA put in place to help minimize the above costs for the taxpayer?

4. How have the reforms on the VAT system over time affected your business?

5. How does the convenience and simplicity of the VAT system compare to other taxes; Pay as you Earn and Corporation tax?

6 What measures can be put in place to improve efficiency in collection of VAT

APPENDIX 5: Tax Administration Questionnaire

PART A: PERSONAL PROFILE

Please tick (✓) appropriately where applicable

(i) Department: _____

(ii) Rank and Grade: _____

(iii) No of years in KRA employment

Less than 5 years ☐

5- 10 years ☐

10-15 years ☐

Over 15 years ☐

PART B

For each question indicate the extent to which you agree or disagree by marking the relevant number below the question that best describes your degree of agreement or disagreement as explained below.:

Circle: 1 if you strongly disagree

2 if you fairly disagree

3 if you neither agree nor disagree

4 if you fairly agree

5 if you strongly agree

GENERAL QUESTIONS	1	2	3	4	5
1. The VAT system has undergone significant Reforms in the last ten years					
2. The reform's process was clearly defined, documented and communicated to employees					
3. The envisioned reforms to VAT have been successfully implemented					
4. The reforms were necessary					
5. KRA offers adequate training to its employees in regards to VAT reforms?					

TAX ADMINISTRATION AND THE TAX PAYER	1	2	3	4	5
6. KRA structure avails adequate channels of communicating VAT system changes to Taxpayers					
7. KRA offers adequate taxpayer education on the VAT system					
8. VAT audits are carried out regularly by KRA					
9. VAT audits enhance revenue collection					
10. VAT audits enhance compliance					
11. VAT audits deter tax evasion					
12. KRA maintains a current register of all taxpayers registered for VAT?					
13. Filing of returns has been simplified for the taxpayer?					

PRODUCTIVITY AND ECONOMY OF VAT	1	2	3	4	5
14. Costs of collecting VAT are measurable					
15. The costs of collecting VAT revenue are high					

PART C

For each question write a brief explanation that best explains your views on the question raised.

1. What challenges are faced when implementing the VAT system?

2. What measures has KRA put in place to help minimize compliance costs to the taxpayer?

-
3. How have the reforms on the VAT system over time affected revenue from VAT?

4. How does the convenience and simplicity of the VAT system compare to other taxes;

5. Does the Kenyan tax system rely more on VAT as the main source of tax as compared to other tax heads?

6. What administrative costs are incurred in the collection of VAT

7. How can the above administration costs mentioned above be reduced?

8. What are the challenges faced in maintaining the database of all VAT registered taxpayers?

9. What challenges are faced when carrying out VAT audits?

10. What challenges are encountered in enforcing tax penalties on VAT defaulters?

11. What measures can be put in place to improve on VAT Productivity.

APPENDIX 6: VAT and GDP Data

	GDP Series (Kshs Million)	VAT (Kshs Million)
1990/91	15,320	297,427
1991/92	18,560	340,384
1992/93	22,160	410,425
1993/94	29,000	492,270
1994/95	24,646	571,187
1995/96	28,398	651,133
1996/97	29,136	729,155
1997/98	35,656	810,560
1998/99	39,263	878,868
1999/00	41,212	937,383
2000/01	50,426	996,878
2001/02	50,899	1,032,341
2002/03	56,366	1,090,272
2003/04	58,773	1,207,878
2004/05	72,656	1,344,899
2005/06	76,185	1,519,208
2006/07	96,573	1,728,052
2007/08	111,008	1,972,342
2008/09	126,878	2,238,314
2009/10	141,041	2,458,308
2010/11	171,679	2,775,659
2011/12	174,788	3,274,230

APPENDIX 7: Taxpayer Questionnaire Tabulation Tables

Q1			
	Score	Frequency	Percentage
SD	1	8	7%
FD	2	12	11%
N A/D	3	7	6%
FA	4	68	63%
SA	5	13	12%
	TOTALS	108	100%
Q2			
	Score	Frequency	Percentage
SD	1	7	6%
FD	2	22	20%
N A/D	3	12	11%
FA	4	55	51%
SA	5	12	11%
	TOTALS	108	100%
Q3			
	Score	Frequency	Percentage
SD	1	6	6%
FD	2	19	18%
N A/D	3	16	15%
FA	4	60	56%
SA	5	7	6%
	TOTALS	108	100%

Q4			
	Score	Frequency	Percentage
SD	1	6	6%
FD	2	35	32%
N A/D	3	20	19%
FA	4	38	35%
SA	5	9	8%
	TOTALS	108	
Q5			
	Score	Frequency	Percentage
SD	1	4	4%
FD	2	16	15%
N A/D	3	20	19%
FA	4	32	30%
SA	5	36	33%
	TOTALS	108	100%
Q6			
	Score	Frequency	Percentage
SD	1	22	20%
FD	2	34	31%
N A/D	3	7	6%
FA	4	37	34%
SA	5	8	7%
	TOTALS	108	100%

Q7			
	Score	Frequency	Percentage
SD	1	19	18%
FD	2	30	28%
N A/D	3	12	11%
FA	4	41	38%
SA	5	6	6%
	TOTALS	108	100%
Q8			
	Score	Frequency	Percentage
SD	1	12	11%
FD	2	50	46%
N A/D	3	15	14%
FA	4	26	24%
SA	5	5	5%
	TOTALS	108	100%
Q9			
	Score	Frequency	Percentage
SD	1	12	11%
FD	2	51	47%
N A/D	3	16	15%
FA	4	24	22%
SA	5	5	5%
	TOTALS	108	100%

Q10			
	Score	Frequency	Percentage
SD	1	2	2%
FD	2	19	18%
N A/D	3	26	24%
FA	4	57	53%
SA	5	4	4%
	TOTALS	108	100%
Q11			
	Score	Frequency	Percentage
SD	1	3	3%
FD	2	24	22%
N A/D	3	18	17%
FA	4	57	53%
SA	5	6	6%
	TOTALS	108	
Q12			
	Score	Frequency	Percentage
SD	1	3	3%
FD	2	24	22%
N A/D	3	13	12%
FA	4	60	56%
SA	5	8	7%
	TOTALS	108	100%

Q13			
	Score	Frequency	Percentage
SD	1	15	14%
FD	2	23	21%
N A/D	3	19	18%
FA	4	39	36%
SA	5	12	11%
	TOTALS	108	100%
Q14			
	Score	Frequency	Percentage
SD	1	8	7%
FD	2	24	22%
N A/D	3	4	4%
FA	4	67	62%
SA	5	5	5%
	TOTALS	108	100%
Q15			
	Score	Frequency	Percentage
SD	1	13	12%
FD	2	20	19%
N A/D	3	14	13%
FA	4	55	51%
SA	5	6	6%
	TOTALS	108	100%

Q16			
	Score	Frequency	Percentage
SD	1	7	6%
FD	2	29	27%
N A/D	3	21	19%
FA	4	46	43%
SA	5	5	5%
	TOTALS	108	100%
Q17			
	Score	Frequency	Percentage
SD	1	21	19%
FD	2	37	34%
N A/D	3	18	17%
FA	4	30	28%
SA	5	2	2%
	TOTALS	108	100%
Q18			
	Score	Frequency	Percentage
SD	1	13	12%
FD	2	26	24%
N A/D	3	21	19%
FA	4	42	39%
SA	5	6	6%
	TOTALS	108	

Q19			
	Score	Frequency	Percentage
SD	1	8	7%
FD	2	24	22%
N A/D	3	14	13%
FA	4	53	49%
SA	5	9	8%
	TOTALS	108	100%
Q20			
	Score	Frequency	Percentage
SD	1	9	8%
FD	2	27	25%
N A/D	3	18	17%
FA	4	53	49%
SA	5	1	1%
		108	100%
Q21			
	Score	Frequency	Percentage
SD	1	7	6%
FD	2	24	22%
N A/D	3	16	15%
FA	4	55	51%
SA	5	6	6%
	TOTALS	108	100%

Q22			
	Score	Frequency	Percentage
SD	1	9	8%
FD	2	34	31%
N A/D	3	10	9%
FA	4	50	46%
SA	5	5	5%
	TOTALS	108	100%
Q23			
	Score	Frequency	Percentage
SD	1	7	6%
FD	2	11	10%
N A/D	3	24	22%
FA	4	50	46%
SA	5	16	15%
	TOTALS	108	100%
Q24			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	7	6%
N A/D	3	10	9%
FA	4	47	44%
SA	5	44	41%
	TOTALS	108	100%

Q25			
	Score	Frequency	Percentage
SD	1	13	12%
FD	2	50	46%
N A/D	3	6	6%
FA	4	21	19%
SA	5	18	17%
	TOTALS	108	100%
Q26			
	Score	Frequency	Percentage
SD	1	19	18%
FD	2	21	19%
N A/D	3	8	7%
FA	4	51	47%
SA	5	9	8%
	TOTALS	108	100%

APPENDIX 8: Tax Administration's Questionnaire Tabulation Tables

Q1			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	0	0%
N A/D	3	0	0%
FA	4	7	64%
SA	5	4	36%
	TOTALS	11	100%
Q2			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	2	18%
N A/D	3	1	9%
FA	4	8	73%
SA	5	0	0%
	TOTALS	11	100%
Q3			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	6	55%
N A/D	3	3	27%
FA	4	0	0%
SA	5	2	18%
	TOTALS	11	100%

Q4			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	2	18%
N A/D	3	4	36%
FA	4	4	36%
SA	5	1	9%
	TOTALS	11	100%
Q5			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	6	55%
N A/D	3	1	9%
FA	4	4	36%
SA	5	0	0%
	TOTALS	11	100%
Q6			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	4	36%
N A/D	3	0	0%
FA	4	7	64%
SA	5	0	0%
	TOTALS	11	100%

Q7			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	2	18%
N A/D	3	1	9%
FA	4	8	73%
SA	5	0	0%
	TOTALS	11	100%
Q8			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	6	55%
N A/D	3	0	0%
FA	4	4	36%
SA	5	1	9%
	TOTALS	11	100%
Q9			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	0	0%
N A/D	3	0	0%
FA	4	10	91%
SA	5	1	9%
	TOTALS	11	100%

Q10			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	0	0%
N A/D	3	2	18%
FA	4	8	73%
SA	5	1	9%
	TOTALS	11	100%
Q11			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	0	0%
N A/D	3	4	36%
FA	4	3	27%
SA	5	4	36%
	TOTALS	11	100%
Q12			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	2	18%
N A/D	3	3	27%
FA	4	5	45%
SA	5	1	9%
	TOTALS	11	10%

Q13			
	Score	Frequency	Percentage
SD	1	1	9%
FD	2	6	55%
N A/D	3	0	0%
FA	4	4	36%
SA	5	0	0%
	TOTALS	11	100%
Q14			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	3	27%
N A/D	3	8	73%
FA	4	0	0%
SA	5	0	0%
	TOTALS	11	10%
Q15			
	Score	Frequency	Percentage
SD	1	0	0%
FD	2	2	18%
N A/D	3	9	82%
FA	4	0	0%
SA	5	0	0%
	TOTALS	11	100%

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