AN ASSESSMENT OF THE EFFECT OF TAX OBLIGATIONS AWARENESS ON COMPLIANCE BEHAVIOUR AMONG PARTNERSHIP REGISTERED BUSINESSES IN MACHAKOS COUNTY, KENYA

By

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ABSTRACT

Kenya Revenue Authority is expected to meet its annual revenue targets to enable the Government meet its recurrent and development expenditure with minimal borrowing. In doing so, the Authority has substantially invested in modernization and taxpayer education services among other key revenue initiatives. However, except for the financial years 2006/07 and 2007/08 when the Authority exceeded the revenue targets by 1.2% and 2.2% respectively, the Authority has failed to meet its annual revenue targets for the period between 2008/09 to 2012/13. This is partially attributed to non-compliance with registration, ling, payment and keeping proper books of accounts that facilitate audit checks with high revenue yield. This is due to lack of reliable, verifiable and up to date information on awareness of tax obligations among taxpayers and its effect on tax compliance behaviour. The overall objective of the proposed study was therefore to assess the effect of tax obligations awareness on compliance behaviour among registered partnership businesses. The study adopted a descriptive research design and the target population was a representative sample of partner-ship businesses registered in Machakos town. A representative sample of the aforementioned population was selected using Stratified random sampling method. Data was collected using a semi-structured questionnaire which was administered face to face to the respondents. Collected data was checked for errors of omission and commission. Data was then classified, measured, analysed and interpreted, with respect to the study objectives. Analysis was done using descriptive statistics including the assessment of central tendency (convergence), and of dispersion (divergence). Test of independence (t-test) and ANOVA tests were carried out to test difference of means whilst Pearsons Correlation was employed to test the relation-ship between awareness of tax requirements (Income tax, VAT and
TOT) and compliance behaviour. The results of the study will be vital in providing information to the revenue agency and also inform relevant tax policies.

1. CHAPTER ONE: INTRODUCTION

1.1. Introduction

Tax compliance is a taxpayer's willingness to comply with tax laws, person's act of filing their tax returns, declaring all taxable income accurately, claim correct deductions, relief & rebates and disbursing all payable taxes within the stipulated period without having to wait for follow-up actions from the tax administration. Furthermore, tax compliance has also been segregated into two perspectives, namely compliance in terms of administration and compliance in terms of completing (accuracy) the tax returns. Compliance in pure administrational terms therefore includes registering or informing tax authorities of status as a taxpayer, submitting a tax return every year (if required) and following the required payment time frames. In contrast, the wider perspective of tax compliance requires a degree of honesty, adequate tax knowledge and capability to use this knowledge, timeliness, accuracy, and adequate records in order to complete the tax returns and associated tax documentation (Palil, 2010). Tax compliance behaviour is influenced by a situation whereby taxpayers have to make decisions under conditions of uncertainty.

The compliance level with filing (both manual and electronic) for various tax heads in Kenya are way below 50 per cent mark with the rate for VAT, Corporate tax and PAYE as 31%, 23.3% and 7.9% respectively. This is an indicator that there could be high non-compliance with other statutory obligations. Furthermore, given the various aspects of tax compliance such registration compliance, record keeping compliance, filing compliance and payment compliance, a taxpayer who fails to meet any one of the obligations is deemed to be non-compliant. That act has an impact on tax revenue collection. This also shows that there are different degrees of compliance and associated risks to revenue collection.

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Tax compliance action in KRA is more concerned with filing compliance, payment compliance and to a lesser extent record keeping and registration compliance. There is need to ensure that taxpayers that ought to be registered for tax purposes are registered for the right tax obligation with KRA. Currently, potential taxpayers register on-line for tax obligations which may not be the correct ones. Consequently, there should be regular cleaning of the registration data in the system to weed out those taxpayers not in the right tax obligations.

This study is informed by desire to assess the awareness of tax obligations by taxpayers and its impact on tax compliance behaviour among partnership businesses. This will ensure government tax revenues are enhanced by increasing tax compliance levels especially during this important stage of implementing the Constitution of Kenya, 2010 through the devolved government system. This study will help us to make an assessment of taxpayer awareness of tax obligations and how they affect their compliance behaviour.

The Organization for Economic Co-operation & Development (OECD) has identified four aspects of taxpayer compliance namely registration compliance, record keeping compliance, filing compliance and payment of tax obligation on time. If a taxpayer fails to meet any of these obligations then they may be considered to be non-compliant. However, there are clearly different degrees of non-compliance.

1.2. Problem Statement

Kenya Revenue Authority is expected to meet or exceed its annual revenue targets to enable the Government meet its recurrent and development expenditure with minimal borrowing. In doing so, the Authority has substantially invested in modernization and taxpayer education services among other key revenue initiatives. However, except for the financial years 2006/07 and 2007/08 when Kenya revenue Authority exceeded the revenue targets by 1.2% and 2.2% respectively, the Authority has failed to meet its annual revenue targets for the period between 2008/09 to 2012/13.

Failure by KRA to meet its annual revenue is partially attributed to non-compliance with registration, filing, payment and keeping proper books of accounts that facilitate audit checks with high revenue yield. This non-compliance may be due to lack of reliable, verifiable and up to date information on awareness of tax obligations among taxpayers, their compliance behaviour and how the relationship between the two affects tax collection. Lack of data on tax obligations awareness among taxpayers and how it affects compliance behaviour has a negative implication in helping the revenue agency to identify the appropriate treatment strategies to employ to enhance compliance. This will ultimately mean that the Authority does not meet the revenue targets set by the National Treasury. This study therefore explored the awareness of tax obligations among taxpayers registered for Turnover Tax (ToT), Value Added Tax (VAT) and Pay As You Earn (PAYE) and its effect on compliance behaviour. In response to this problem, the study carried out primary data collection through face to face interviews among some randomly selected taxpayers in one of the KRA's stations.

1.3. Objectives of the study

Whereas the overall objective of this study was to investigate if a relationship exists between awareness of tax obligations and compliance behaviour for registered

partnership businesses in Machakos station (both compliant and non-compliant), the specific objectives were;-

i.   To enumerate the level of tax knowledge among partnership businesses

ii. To examine the relationship between tax obligations awareness and tax compliance behaviour

iii. To elicit the reasons for taxpayer non-compliance and reveal some of the motives of tax evaders

iv. To recommend mitigating measures to address the compliance risk identified.

1.4. Significance of the study

The study is expected to fill the existing gap on tax awareness and its impact on tax compliance behaviour. The results will also help the tax administration to understand tax compliance behaviour among partnership businesses better and thereby develop strategies and policies that will enhance tax awareness and compliance.

1.5. Basic Concepts

Value Added Tax (VAT)   Tax on consumer expenditure introduced in Kenya in January 1990 to replace Sales Tax, which had been in operation since 1973.

VAT is levied on consumption of taxable goods and services supplied or imported into Kenya and are collected by registered persons at designated points who then remit it to the Commissioner. Registered persons only act as VAT agents in collecting and paying the tax since the tax is borne by the final consumer of goods and services

Pay As You Earn (PAYE) Tax payment method in which an employer is required by law to deduct income tax from an employee's taxable wages or salary. This amount (with the employer's contribution, if applicable) is deposited with the KRA office

usually by the 9th day of the proceeding month after collection.

Turnover Tax (TOT)	This type of tax was introduced by the Finance Act, 2007 through the provision of the Income Tax Act, Cap 47 as one of the approaches of taxing the informal sector. It came into effect on 1st January 2008. Turnover Tax is applicable to any resident person whose turnover from business does not exceed **Ksh. 5 million** at the rate of **3%** of turnover.
Tax Education	Any informal or formal program organized by the tax authority or independent agencies to facilitate taxpayers in understanding their tax obligations, completing tax returns correctly and also to create awareness of their responsibilities in respect of the tax system.
Tax Compliance	The act of the citizens and businesses to satisfy their obligations under the tax law to register where they are required to, to voluntarily declare and pay their tax liabilities on time
Tax Non- Compliance	The act of the citizens and businesses not to satisfy their obligations under the tax law to register where they are required to, to voluntarily declare and pay their tax liabilities on time

2. CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This chapter presents a review of literature pertinent to the study as presented by various researchers, scholars' analysts and authors. This chapter summarizes literature that has been reviewed for the purpose of the study which was to undertake an assessment of taxpayer awareness of tax obligations and its effect on compliance behaviour. The literature covered theoretical framework on compliance behaviour and tax awareness. The chapter further gives an overview of the literature of previous studies, findings and recommendation showing the research gap to be filled. Lastly, the conceptual framework of the study was presented in this chapter.

2.2. Tax Education, Awareness and Compliance Concepts

Tax Education which has been the key source of information on emerging trends in taxation, include any informal or formal program organized by the tax authority or independent agencies by which to facilitate taxpayers in understanding their tax obligations, completing tax returns correctly and also to create awareness of their responsibilities in respect of the tax system (Eriksen and Fallan, 1996; McKerchar, 2007). Various programmes in the Kenya, including the taxpayer week, tax debate in schools and tax clinics, have been employed to educate all categories of taxpayers. Through taxpayer clinics, facilitators provided training on registration, choosing tax obligations, filing tax returns, art of record keeping, preparing business and personal tax returns, self-employment tax issues, and employment taxes are always discussed. Although Tax education is known to increase the tax awareness among the taxpayers the ability to interact with the tax agency through interactive website, dissemination of leaflets together with tax returns, call centers, advertisements, both in print media, television and radio depend on several other factors.

Past literature tend to indicate that tax awareness about tax laws also plays a major role in determining taxpayers' compliance behaviour (Eriksen and Fallan, 1996).

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Hence consistent and well planned education program may lead to increased awareness of tax obligations among taxpayers. However, the impact of tax education depends mostly on other individual characteristics of taxpayers including their willingness to read, accept and remain faithful on their tax matters.

On the other hand, (OECD, 2008) defines tax compliance as "the act of the citizens and businesses to satisfy their obligations under the tax law to register where they are required to, to voluntarily declare and pay their tax liabilities on time. Hence according to OECD, tax compliance can be grouped into four main areas namely registration for tax purposes – in Kenya a taxpayer is expected for instance to register for a PIN and select the tax obligations, filing returns on time – each tax head has a payment date as entrenched in law and tax agency authorities, to file tax returns on time and pay taxes due on time as stipulated in tax laws.

The definition by OECD tend to agree with the definitions offered by many tax agencies round then globe which is defined as the 'ability and willingness of taxpayers to comply with tax laws, declare the correct income in each year and pays the right amount of taxes on time.

On the other hand, (Feinstein, 1998) defines tax compliance as 'taxpayers' willingness to obey tax laws in order to obtain the economy equilibrium of a country' whereas (Martina Hartner, 2008) argued that tax compliance is the taxpayers' willingness to pay their taxes.

We therefore see that Tax Compliance is more administrative in nature since the process involve registering or informing tax authorities of status as a taxpayer, submitting a tax return every year (if required) and following the required payment time set out. However, since tax laws have given the taxpayer the power to lodge self-declarations, the tax compliance is equally influenced in great measure by personal traits of the taxpayer including the honesty and integrity. It is also affected by the extent of tax knowledge by the taxpayer and their capability and capacity to

transfer the acquired knowledge into complying with compliance areas including registration, filing, payment and keeping records. Having noted so, it is obvious that tax agencies through audits and market surveillance approaches influence tax compliance since these acts reduce the risks of non-compliant behaviour.

(Sandmo, 1972) explain tax compliance as the result of a correlation between variables that include perception on equity, efficiency and public finance management. Tax enforcement such as penalties, interests and the probability of detection also relate to tax compliance while individual factors such as amount of wages, salaries and tax bracket also contribute to tax compliance (Martina Hartner, 2008).

Tax non- compliance can therefore be described as the act of the citizens and businesses not to satisfy their obligations under the tax law to register where they are required to, to voluntarily declare and pay their tax liabilities on time.

2.2.1. Tax Compliance measurement

(OECD, 2001) asserts that tax compliance measurement begins with understanding the variables to be measured. These variables include evasion, avoidance, compliance and non-compliance. The measurement must begin by identifying and ranking areas of low or non-compliance. The areas ranked are then matched with appropriate strategies to addresses issues with highest concern.

Further (OECD, 2001) indicate that a range of measurement methods can be employed to quantitfy compliance and that these methods can supplement each other since none is likely to be stand alone. These methods include Audit Based studies, review of tax return items, Using financial data to make comparisons and ratios and surveys.

2.2.2. Tax non compliance

James and Alley define tax evasion as 'the attempt to reduce tax liability by illegal means' while tax avoidance is defined as 'reducing taxation by legal means' (Lewis, 1982) perceived tax evasion as 'any legal method of reducing one's tax bill' and tax evasion is 'illegal tax dodging'. Similarly, (Aripin, 2003) perceived tax evasion as actions which result in lower taxes than are actually owed (p. 135) while tax avoidance, denotes the taxpayers' creativity to arrange his tax affairs in a proper manner based on law and regulation (any provision not violated) so as to reduce his tax bill, and this is (or should be) acceptable in view of the tax administrator.

(Lewis, 1982), (Webley, 2004) and (Hessing, 1987) argued that non-compliance includes both intentional and unintentional actions. The latter of these are normally due to calculation errors and inadequate tax knowledge although there are other determinants. (Lewis, 1982), outlined two major distinctions in intentional tax evasion: 1) evasion by commission and 2) evasion by omission. Evasion by commission requires an action by taxpayer, for example claiming deductions or rebates which mean that if a taxpayer is making a false claim, he will get a tax saving (a commission on top of his evading actions). Conversely, evasion by omission is intentional and should be classified as seriously as evasion by commission (Lewis, 1982). This kind of evasion requires taxpayers to do nothing in the tax return (i.e miss something out deliberately); for example, one would not report his casual income or any cash-basis income.

Based on the definitions and explanation of tax evasion and avoidance, (Lewis, 1982), asserts that the dividing line between evasion and avoidance still remains unclear. (Kim, 2008) while undertaking a study on tax evasion used eleven variables to measure tax evasion namely: price controls, public service, litigation against government, collected personal income tax, collected corporate tax, administrative regulation, and tax non-compliance: Unintentional, Intentional ,Avoidance ;Evasion; GDP per capita, tax system, composition of government spending, effective personal income tax rate, and average corporate tax rate respectively.

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Kim used regression analysis of this data which showed that tax evasion is predominantly influenced by only six variables, namely price controls, public services, collected corporate tax, GDP per capita, tax system and the composition of government spending.

A fundamental difficulty in analyzing non-compliance of taxpayers is lack of reliable information on tax compliance. After all, tax evasion is illegal and individuals have strong incentives to conceal their cheating (Alm, 2013).

(Merima, 2013) in their paper explored factors that determine citizens' tax compliance attitude in Kenya, Tanzania, Uganda and South Africa. The analysis was based on attitude and perception data from the round five (5) of Afro barometer surveys. Using a binary logit regression, the study found out that citizens who perceive that it is difficult to avoid taxes are more likely to have tax compliant attitude than citizens who think avoidance is relatively easier and that individuals who are more satisfied with public service provision are more likely to have a tax compliant attitude in all the four countries. On the other hand, frequent payment to non-state actors, such as criminal gangs, in exchange for protection, reduces individual's likelihood to have tax compliant attitude. Furthermore, in Tanzania and South Africa individuals who perceive that their ethnic group was treated unfairly by the government were less likely to have a tax compliant attitude.

According to a study done by 'The Taxpayer Advocate Service (TAS)' in the USA in 2010, a survey was conducted to better understand factors that may affect their income tax reporting compliance. TAS designed survey questions to reveal the effect, on reporting compliance of various factors such as deterrence, compliance norms, trust in the government and the tax administration process, complexity and the convenience of complying among others. TAS also asked questions about demographics because these may be correlated with or help to explain the factors that do. As a dependent variable, TAS relied on a proxy for taxpayer compliance generated by IRS, that an audit would produce an adjustment in tax liability (called a Discriminant Index Function-DIF). IRS develops DIF for all taxpayers in each

segment. TAS used DIF to select their sample based on the top and bottom deciles. The study found out that the taxpayers in high compliance group expressed more trust in the government, those in low compliance group expressed less trust, economic deterrence did not motivate compliance decisions, most taxpayers agreed that tax rules were complicated and thus difficult to get a tax return exactly right thus impacting negatively on tax compliance, taxpayers in the low compliance group were suspicious of tax system and its fairness among others.

A paper prepared in Minnesota Department Revenue (Christian, 1998) and entitled "the determinants of income tax compliance: evidence from a controlled experiment" employed a series of income tax compliance experiments to test alternative strategies for the purpose of improving tax compliance and increasing voluntary compliance. About 4,700 Minnesota taxpayers who filed their 1993 income tax returns were selected randomly for one of five experimental treatments' that were administered at the beginning of the filing season for 1994 returns. The data was matched to corresponding data from the subsequent year returns of the same taxpayer after the experimental interventions. Data was then analysed for the experimental and control group. Regression analysis was carried out where the explanatory variables included dummy variables for ranges of total positive income, marital status, age, presence of a paid preparer/tax agent, marginal tax rate and the presence of various supplemental schedules in addition to the treatment dummy. The study established that the treatment effect varies depending on the level of income. Low and middle income taxpayers increased reported income and tax liability relative to the control group unlike upper class taxpayers.

A study conducted in Tanzania (Samboja, 2001) to shed light on factors determining tax compliance behaviour in local government authorities employed a survey approach and the questionnaire contained information on background information on the respondent, admitted (non-compliance), tax enforcement, perception on other's

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behaviour, perception of the terms of trade with government, social influences, severity of sanctions, fiscal exchange.

In the case of South Africa, a study conducted by Fjeldstad (Fjeldstad, 2004), investigated the reasons for variation in compliance behaviour within and between local authorities with similar socio-economic characteristics. The dependent variable used was the non-payment of taxes. The source of the data was from two comprehensive national surveys, which explicitly focuses on payment of municipal services. These surveys had been conducted by the Centre for Development Support (CDS) at the University of Free town and by the Helen Suzman Foundation respectively.

2.3. Tax Awareness and Tax Compliance

A Statistical relationship exist between awareness and compliance behaviour has been found in several research work done elsewhere (Mohamad Ali et. al., 2007). (Harris, 1989) divided tax awareness into two aspects, namely, awareness through common or formal education received as a matter of course and awareness specifically directed at possible opportunities to evade tax. In the first case, the level of education received by taxpayers is an important factor that contributes to the general understanding about taxation especially regarding the laws and regulations of taxation (Eriksen and Fallan, 1996). Previous studies have shown that general tax awareness has a very close relationship with taxpayers' ability to understand the laws and regulations of taxation, and their ability to comply with them (Singh, 2003).

Given evidence that tax awareness affects understanding of taxpayers, the concern that has been raised by other researchers (e.g. Singh, 2003; Eriksen and Fallan, 1996; Harris, 1989) is whether enhancement of tax awareness will increase tax compliance.

(Eriksen, 1996) claimed that 'awareness about tax law is assumed to be important for preferences and attitudes towards taxation. There is little research that explicitly considers how attitude towards taxation is influenced by specific awareness of tax

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regulations'. The research done by Eriksen and Fallan has illustrated the importance of tax awareness in a tax system. They suggested that fiscal awareness correlates with attitudes towards taxation and tax behaviour can be improved by a better understanding of tax laws. The investigation is focused on taxpayers' awareness and also attempts to calculate the overall impact of tax awareness on tax compliance behaviour among individual taxpayers the role of tax agents in influencing taxpayers' behaviour. (Eriksen, 1996) attempted to determine the relationship between the level of tax awareness and attitudes toward taxation; whether specific tax awareness influences attitudes in general (not only tax attitudes) and investigates people's behaviour toward traditional crime or knowing the time to pay taxes. The study was conducted through quasi-experiment with pre-testing and post-testing of two student groups in Norway. The control group comprised of students who were going to take marketing as an elective subject in the second year of their education whereas the other group (experimental group) consisted of students who had selected tax laws as an elective.

Hence a successful means of reducing tax evasion is to provide more tax awareness to as many taxpayers as possible in order to improve their tax ethics and perceptions of fairness and equity. The results of Eriksen and Fallan also imply that there is a strong suggestion that tax law and tax awareness should be included as a 'compulsory course in social science in the schools' (Eriksen, 1996).

(Lewis, 1982) attempted to determine if there exists any connection between specific tax awareness and attitude during completing the tax return. His aim was to study any changes in the attitudes towards taxation that result from increased awareness about taxation which might have a significant impact on tax compliance. Lewis argued that that there is insufficient awareness about tax regulations and this situation leads to negative economic effects (an increase in the tax gap).

Furthermore, there also seemed to be considerable differences in the level of awareness although the level of education remains the same. Moreover, there are no comparable experiments focusing on how better specific tax awareness affects

attitudes towards taxation as mentioned by (Alm, 1991), who presents a survey of experiments in tax compliance research.

In conclusion, we observe that designing and fully implementing a tax knowledge programme for taxpayers by a tax agency is a critical component towards addressing the problem of non-compliance. Achieving an appropriate voluntary compliance level may therefore be attained if taxpayers can complete the tax returns correctly and pay the right amount of taxes. Hence, taxpayers need to be informed, well educated (particularly in tax matters), and their tax literacy level needs to be enhanced on a regular basis to keep their awareness up to date and relevant.

2.4. Factors affecting tax compliance

2.4.1. Economic factors

Economic deterrence, or coercion, is the focus of the classical tax evasion model (Sandmo 1972), which assumes that the taxpayer's behaviour is influenced by factors such as the tax rate determining the benefits of evasion, and the probability of detection and penalties for fraud which determine the costs. The economic deterrence model relies upon a wide range of major assumptions that are generally unrealistic for determining behaviour.

The problem is thus one of rational decision making under uncertainty whereby tax evasion either pays off in terms of lower taxes or subjects one to sanctions. This implies that if detection is likely and penalties are severe few people will evade taxes. In contrast, under low audit probabilities and low penalties, the expected return to evasion is high. The model then predicts substantial non-compliance.

(Togler, 2011), observes that compliance cannot be explained entirely by such purely financial considerations, especially those generated by the level of enforcement. The percentage of tax returns that are subject to a thorough tax audit is generally quite small in most countries, tallying less than 1 percent of all returns. Similarly, the penalty on even fraudulent evasion seldom exceeds more than the amount of unpaid taxes, and these penalties are infrequently imposed; civil penalties on non-fraudulent evasion are even smaller. Taxpayer audits are a central feature of

the voluntary compliance system in all countries, largely because more frequent audits are thought to reduce tax evasion. Even so, a purely economic analysis of the evasion gamble suggests that most rational individuals should either underreport income not subject to source withholding or over-claim deductions not subject to independent verification because it is extremely unlikely that such cheating will be caught and penalized. However, even in the least compliant countries evasion never rises to levels predicted by a purely economic analysis, and in fact there are often substantial numbers of individuals who apparently pay all (or most) of their taxes all (or most) of the time, regardless of the financial incentives they face from the enforcement regime.

According to (Batrancea, 2012) an important tool called BISEP, (which is the acronym for the determinants of compliance: Business, Industry, Sociological, Economic, and Psychological) is designed to assess the reasons that go behind taxpayers' attitudes and behaviour. The variety of factors creates different types of attitudes, according to the different situations taxpayers face. The type of business that taxpayers are engaged in, size and how the business is structured, location and focus of the business have an impact on tax compliance.

Competition, seasonal factors, profit margins, degree of regulation and infrastructure would impact on the industry and hence would have a bearing on the compliance aspect of the taxpayer. As would psychological factors such as taxpayers' fears, who they trust, degree of risk taking, taxpayers view of fairness and equity among others.

2.4.1.1. Citizen perception on government spending

The fiscal exchange theory suggests that the presence of government expenditures may motivate compliance.(Alm, 1992) note that compliance increases with perceptions of the availability of public goods and services. They suggest that governments can increase compliance by providing goods that citizens prefer in a more efficient and accessible manner, or by more effectively emphasizing that taxes are necessary for the receipt of government services. Accordingly, the main concern of taxpayers is what they get directly in return for their tax payments in the form of

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public services (quid pro quo). In this perspective, taxation and the provision of public goods and services are interpreted as a contractual relationship between taxpayers and the government.

Individuals may pay taxes because they value the goods provided by the government, recognizing that their payments are necessary both to help finance the goods and services and to get others to contribute (Fjeldstad, 2001). A taxpayer may therefore be seen as exchanging purchasing power in the market in return for government services. The existence of positive benefits may increase the probability that taxpayers will comply voluntarily, without direct coercion. (Levi, 1988) refers to this as quasi-voluntary compliance since compliance is motivated by a willingness to cooperate, but is also backed by coercion. It requires that citizens and businesses receive something from the government in return for the extractions government takes from them. It also means that compliance is always conditional. It will vary as governments vary in their performance, honesty, attention to due process, and other determinants of government reliability. Without a material benefit, compliance becomes less assured. Although most taxpayers cannot assess the exact value of what they receive from the government in return for taxes paid, it can be argued that they have general impressions and attitudes concerning their own and others' terms of trade with the government. It is then reasonable to assume that a taxpayer's behaviour is affected by his/her satisfaction or lack of satisfaction with his/her terms of trade with the government. Thus, if the system of taxes is perceived to be unjust, tax evasion may, at least partly, be considered as an attempt by the taxpayer to adjust his terms of trade with the government main proposition of this analytical approach is that bargaining over taxes is central to building relations of accountability between state and society based on mutual rights and obligations, rather than on patronage and coercion.

A 'virtuous circle' may be generated whereby the generation of government tax revenues leads to improved service provision, which in turn increases citizens' willingness to pay their taxes.

2.4.2. Institutional factors

Past research suggest that institutional factors play an important role in their compliance decisions. Such factors include efficiency and effectiveness of tax agencies, ease of submitting tax returns and chances of detection.

2.4.3. Social factors

It is reasonable to assume that human behaviour in the area of taxation is influenced by social interactions much in the same way as other forms of behaviour. Compliance behaviour and attitudes towards the tax system may therefore be affected by the behaviour of an individual's reference group such as relatives, neighbours and friends. Therefore, if a taxpayer knows many people in groups important to him who evade taxes, his/her commitment to comply will be weaker. On the other hand, social relationships may also help deter individuals from engaging in evasion in fear of the social sanctions imposed once discovered and revealed publicly. One of the most consistent findings about taxpayer attitudes and behaviour in Western countries is that those who report compliance believe that their peers and friends (and taxpayers in general) comply, whereas those who report cheating believe that others cheat (Merima, 2013). Evidence suggests that perceptions about the honesty of others may affect compliance behaviour.

2.4.3.1. Changes on relevant tax laws

One strand of the literature emphasises that higher legitimacy for political institutions leads to higher tax compliance (Schneider, 2007). Legitimacy could be described as belief or trust in the authorities, institutions, and social arrangements to be appropriate, proper, just and work for the common good. According to the Political legitimacy theory, tax compliance is positively related to perceptions about the government's, in particular the tax authority's, trustworthiness. Related to political legitimacy is identification with the state in the sense of national pride. Researchers

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have suggested that the group identification deriving from national pride fosters cooperative behaviour and willingness to pay taxes (Schneider, 2007).

The political determinants of tax compliance behaviour are the complexity of tax law, the complexity of tax system, and the fiscal policy. Before taking the decision to comply, one of the first elements taxpayers are confronted with is the tax law. Its level of complexity can turn a well-intentioned taxpayer into an avoider or evader. The structure of tax system can also hinder taxpayers' willingness to comply, if they perceive the system as being too bureaucratic, with a high tax burden, and a high number of taxes. In the same vein, an inefficient fiscal policy mirrored in squandering of public funds and low quality of public goods make taxpayers think twice before paying the entire share of their tax liabilities (Batrancea, 2012).

The Corruption Perception Index, published annually by Transparency International, provides some context within which tax compliance (or the lack thereof) can be reviewed, and whether there are any real chance of significantly enhancing tax revenues at all levels of government. There is obviously not necessarily any direct link between a country's tax policies and tax administration and its ranking in the corruption perception index. However, perceptions about high levels of corruption in government will likely impact on the perceptions of local taxpayers, government service delivery and possible foreign investment. Hence it impacts on tax compliance.

2.4.3.2. Comparative treatment

Equity theory suggests that individuals are more likely to comply with rules if they perceive the system that determines those rules to be impartial. Where there are perceived inequities, individuals will adjust their inputs to the exchange until fairness is restored. Based on equity theory, addressing inequities in the exchange relationship between government and taxpayers would result in improved compliance. Citizens may not consider their relationship with the state in a vacuum where both parties are the only actors. Likewise, they may not think about their fellow citizens without considering their own relationship with the state. They may also

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consider how the state treats them relative to their fellow citizens. This judgment is likely to affect not only their judgment of the state, but also how they view their fellow citizens (D'Arcy, 2011). If the state treats certain groups preferentially, this may colour the citizen's relationship with the state and the group receiving favours. A crucial variable is how the state treats the person relative to those who are in the person's wider national community. This social psychology model highlights the importance of equity theory in the study of compliance and taxpayer behaviour.

2.4.4. Other factors

Other factors that are known to affect tax compliance behaviour include age, gender, general level of education and income level. These variables have been commonly used in past research work on tax compliance (Devos, 2005).

A study done by Chan et. al. investigated whether taxpayers' compliance is influenced by culture. The study investigated the similarities and differences in taxpayer compliance behaviour between two countries. The study results agreed with a study on moral beliefs and taxpayer compliance (Hanno, 1996) as per the Fischer Model on demographic, noncompliance opportunity, attitudes towards and perception of the tax system and, of particular interest to this section, explored the potential effects of an additional construct: cultural difference on taxpayer compliance in an international setting as suggested by (Andreoni, 1998).

(Chan, 2000) results argued that the Fischer Model is a viable conceptual framework for the study of tax compliance. However, this illustrated that the Fisher model could be more meaningful, realistic and reliable if a cultural construct was included in the model (Chan, 2000 and Figure 1).

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Figure 1: Fischer, Wartick and Mark's Model on Taxpayer Compliance
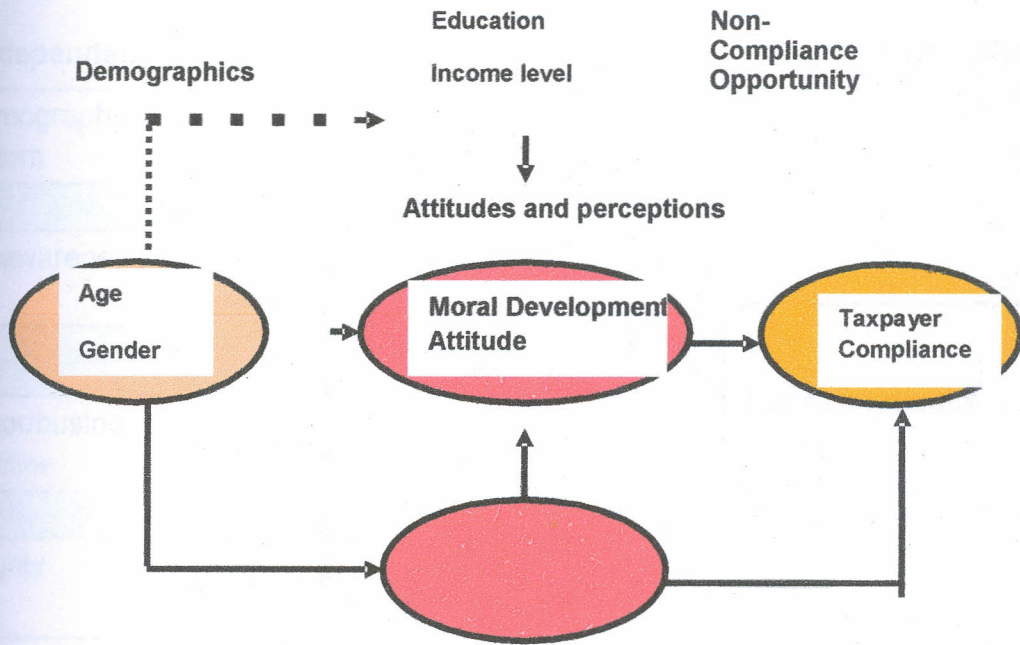
Source: Chan et. al. (2000) p. 95.

2.5. Lesson learnt from Literature Review

- Most research has utilized data generated from surveys of taxpayers
- Past research conducted has addressed compliance/ non-compliance among partnership businesses.
- A fundamental difficulty in analyzing non-compliance of taxpayers is lack of reliable information on tax compliance
- There is a possibility of using a mix of data from the tax administration and from primary sources such as surveys.

2.6. Conceptual Framework

This study proposed that Tax compliance behaviour is influenced by taxpayer demographic characteristics, tax awareness, sector/business activities and integrity

Figure 2: Conceptual Framework

Independent Variables   **Dependent Variable**
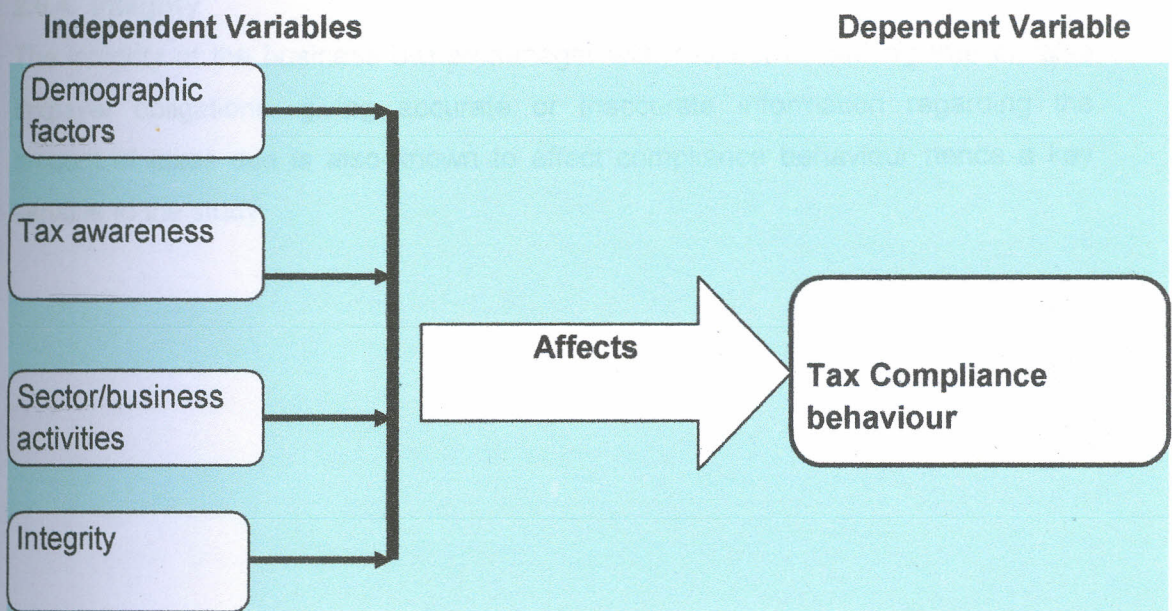
Source: Author, 2014

2.6.1. Demographic factors

This study aimed to measure the how age, gender, education level, attendance to tax awareness workshop, ever been audited, marital status affect compliance behaviour of a taxpayer

2.6.2. Tax Awareness

Kenya Revenue Authority administers and enforces several tax laws hence this study investigated the awareness of tax obligations for only Income Tax, VAT and Turnover Tax on the four(4) areas of compliance and how the awareness affect tax compliance.

2.6.3. Sector/Business activities

The sector and/or business activities of any business are known to have an effect on compliance behaviour. Business in the same sector or undertaking similar business activities are known to have similarities with respect to compliance.

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2.6.4. Integrity

The integrity of the business owner/manager with respect to making true or false taxpayer obligations, giving accurate or inaccurate information regarding the amount of taxes due is also known to affect compliance behaviour hence a key variable to the study.

3. CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter gives a description of the research design and methodology that was used in this study. Initially, the chapter attempts to elaborate on the survey method that was employed including the data collection process (procedures, sampling frame and questionnaire design). It further gives a description of the research framework, hypothesis and data analysis methods used.

3.2. Data Collection methods

This sub section gives a brief description of the data collection procedures including a short explanation of the sampling frame and survey process, the target respondents and techniques that was put in place to enhance response rate.

3.2.1. Sampling frame and survey procedure

Fieldwork for this study was carried out during the months of April and May 2014 following the University approval. Data entry, analysis and finalization of the paper was done during the month of May and June 2014. A pilot test was initially conducted before the commencement of the actual fieldwork in order to address the issues of validity and reliability of the questionnaire.

3.3. Research Design

The research was based fundamentally on quantitative research method. The method was found compatible with the study because it allowed the research problem to be conducted in a very specific and set terms (Frankfort-Nachmias, 1992). Besides, quantitative research plainly and distinctively specifies both the independent and the dependent variables under investigation (Matveev, 2001, November). It also followed resolutely the original set of research goals, arriving at more objective conclusions, testing hypothesis, determining the issues of causality and eliminating or minimising subjectivity of judgment (Matveev, 2001, November). Furthermore, this method allowed for longitudinal measures of subsequent performance of research subjects (Matveev, 2001, November). Finally, it provided achieving high levels of reliability of gathered data

due to controlled observations, mass surveys, or other form of research manipulations (Balsley, 1990).

3.4. Target population

The target taxpayer population of this study was partnership businesses for which their Personal Identification Number (PIN) was dormiced at Machakos KRA station. The number of registered and active partnership businesses in Machakos station was 206 at the time of designing the study. The Sectoral breakdown is herein presented below.

Table 1: Number of registered partnership businesses in Machakos Station

Sector	Frequency	%
Agriculture	3	1.5
Construction	6	2.9
Education	25	12.1
Electricity and water	1	0.5
Finance and Insurance Services	2	1.0
Health & Social work	6	2.9
Hotels & Restaurants	4	1.9
Manufacturing	15	7.3
Mining & Quarrying	2	1.0
Other Community, social & personal services	5	2.4
Real Estate & business services	38	18.4
Transport and Communication	7	3.4
Wholesale and retail trade	92	44.7
Total	206	100.0

Source: KRA

3.5. Sampling Technique and sample size

Taxpayers for this study were selected through a stratified random sample since this approach ensured that all partnership businesses are represented by sector. The use of stratified random sampling allowed an equal chance of each taxpayer being selected. Two methods were used to arrive at the sample size. The following formula as used by (Lohr, 2010) was used to select a sample from the population of interest.

For large populations >10,000

Sample size $(n_0) = Z^2 X(p)X(1-p)/e^2$

Where Z is the Z value such as 1.96 for 95% confidence level

P is the percentage of picking a choice expressed as decimal (in this case 0.5)

E is the margin of error at 5% (i.e., standard value of 0.05)

Using the above formula, our sample size for the population of 216 and by modifying the formular for large population become:

$$n_0 = \frac{1.96^2 X 0.5(1 - 0.5)}{0.05^2} = \frac{3.8416 X 0.25}{0.0025} = 384.16 \approx 384$$

The second method below was used to select a sample from our small population of 206.

$$n = n_0/(1 + (n_0 - 1)/N) = 384.16/(1 + \frac{384.16 - 1}{N})$$

The above model gave a sample of 135 partnership businesses. Table 3 below presents the sample drawn by sector;-

Table 2: Computed Sample

Sector	Frequency	%	Sample, n
Agriculture	3	1.5	2
Construction	6	2.9	4
Education	25	12.1	16
Electricity and water	1	0.5	1
Finance and Insurance Services	2	1.0	1
Health & Social work	6	2.9	4
Hotels & Restaurants	4	1.9	3
Manufacturing	15	7.3	10
Mining & Quarrying	2	1.0	1
Other Community, social & personal services	5	2.4	3
Real Estate & business services	38	18.4	25
Transport and Communication	7	3.4	5
Wholesale and retail trade	92	44.7	60
Total	206	100.0	135

Source: Researcher, 2014

3.5.1. Data collection Instrument

Data was collected using a semi structured questionnaire which contained both open-ended and close-ended questions. This method was highly regarded since the method yields a high response rate and accurate sampling. Respondents were properly briefed for the reasons of eliminating fatal bias. The instrument was considered appropriate for

the study because all the respondents interviewed were literate. The approach was also less costly in terms of time, and it was more flexible for busy respondents.

3.5.2. Data Collection Procedure

A questionnaire in general terms include all techniques of data collection in which each person is asked to respond to the same set of questions in a predetermined order (De Vaus, 2002). It therefore includes both structured interviews and telephone questionnaires. In this regard, the researcher first sought approval from Kenya Revenue Authority for collection of data in the area of interest after obtaining a letter for collecting data from Maseno University. To effectively collect the data, the study employed the services of two Research Assistant (RA) who helped greatly in data collection. The RAs were adequately trained to understand the questionnaire before commencement of the data collection. The respondents were interviewed through face to face interviews by the Principal research and the RA.

3.5.3. Reliability and Validity Testing

The Prior to actual data collection, a pilot test was carried out. The flow and understanding of the questions by the respondents were tested together with the test the reliability of the research tool. The pilot study was conducted among five (5) taxpayers who did not consequently participate in the actual data collection. Pilot testing was conducted in an attempt

The data was tested for reliability to establish issues such as data sources, methods of data collection, time of collection, presence of any biasness and the level of accuracy. The test for reliability was meant to establish the extent to which results were consistent over time.

Reliability is the extent to which results are consistent over time and an accurate representation of the total population under study and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. While, validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Joseph A. Gliem, 2003).

In this study, the cronbach's alpha test which is a reliability coefficient was used to measure the intercorrelation of items and further demonstrate that the items measured

the same thing and hence rule out the measurement error. The rule of thumb of thumb for Cronbach's alpha is that the closer the alpha is to one (1) the higher the threshold (Serakan, 2003). (George, 2003) provide the following rules of thumb: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and_ < .5 – Unacceptable".

Furthermore, the researcher improved the instrument by reviewing or deleting inconsistent items from the instrument. To test for reliability, the study used the internal consistency technique.

3.6. Data analysis

Data analysis is the process of systematically searching, arranging, organizing, and breaking data into manageable units, synthesizing the data, searching for patterns, discovering what is important and what is to be learned. Collected data was checked for errors of omission and commission. Data was classified, measured, analysed and interpreted, with respect to the study objectives. Analysis was done using descriptive statistics which is the assessment of central tendency (convergence), and of dispersion (divergence). The data has been presented in form of tables and charts. The study has also used both quantitative and qualitative analysis. Quantitative analysis employed descriptive analysis whilst qualitative analysis employed content analysis for three open ended questions included in the semi-structured questionnaire.

T-test and ANOVA analysis have been used to test difference in means for Income Tax, VAT and TOT tax awareness. On the other hand, Pearson's Correlation has been used to determine if any relationship between various categorical variables (including compliance behaviour against perceived awareness of tax obligations). The test is a nonparametric technique and was found applicable in this study since much of our data was measurable in nominal (categorical) scales and moreso the sample size was smaller. Pearson's correlation statistical test was employed to investigate the effect of selected survey questions on taxpayer obligation awareness on compliance behaviour. Specifically, the independent variables (taxpayer awareness of the taxpayer obligations for Income tax, VAT and TOT) was statistically analysed in the study against the questions on compliance behaviour. The variables were first tested for statistical significance at the 5 per cent level. (i.e. statistically significant at p =0.05). Cross

tabulations (SPSS outputs) of the results were examined to determine existence of any relationship between the dependent and independent variables while frequencies and percentage of responses on some selected questions were carried out to help in carrying out comparisons.

3.7. Ethical Considerations

Before data collection commenced, the researcher obtained authority to collect the data from the appropriate authorities. First, the researcher obtained a letter to allow him to go ahead with data collection from Maseno University. This letter was addressed to all targeted respondents. The researcher then sought an authority from KRA to collect data among its taxpayers. A letter of request to participate in the study was addressed to the respondents and delivered to the targeted respondents during data collection as a way of showing courtesy and responsibility to the respondents as well as a mechanism of ensuring informed consent to participate in the study. All the data collected has been kept in safe custody and confidentiality observed.

4. CHAPTER FOUR: DATA ANALYSIS & INTERPRETATION OF THE RESULTS

4.1. Introduction

Chapter 4 presents the results of the study. The chapter is arranged in the following order;- demographic information that relate to respondents' position in the establishment, age, marital status, highest level of education, religion, duration in the current business, sector of the economy they primarily operate in, attendance to KRA sensitization workshops and whether taxpayer has ever been audited . Further, the chapter is divided into the following areas;-

i.   Level of taxpayers' awareness of Income tax, VAT and TOT

ii. Measured association between tax awareness for income tax, VAT and TOT (independent variables) and tax compliance based on hypothetical and direct questions)

iii. Measured association between tax knowledge and tax compliance with control variables

iv. To find out the facts that impact tax compliance behaviour using both direct and hypothetical questions

v.   Determine key determinants of tax compliance with control variables.

4.2. Demographic profiling of the survey respondents

4.2.1. Taxpayer current tax Obligation

Whereas the study screened only businesses/establishments already registered for PIN, the proportion of taxpayers found registered for PAYE, Income tax, VAT and TOT is as presented in Figure 3 below. We see in Figure 3 that out of the 135 taxpayers interviewed, 46 per cent of them were registered for income tax whilst 61 per cent and 38 per cent were registered for VAT and TOT respectively. There were only 2 per cent of taxpayers registered for PAYE.

Figure 3: Proportion of respondents registered for PAYE, TOT, VAT and Income tax

PAYE, 2%
Turnover tax, 38%
Income tax, 46%
VAT, 61%
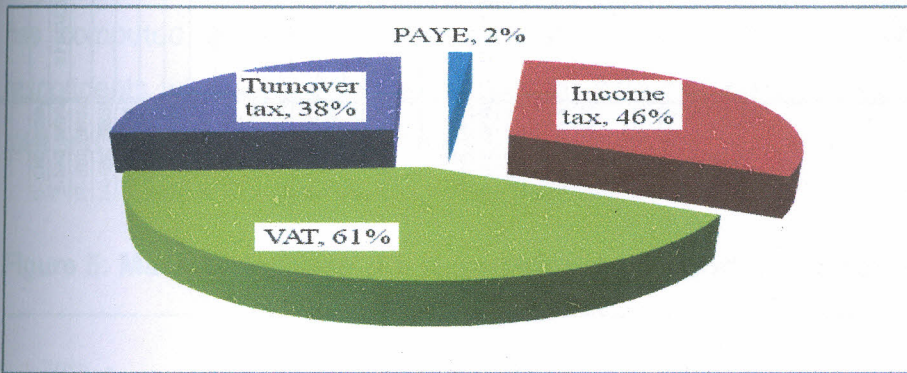
4.2.2. Respondents Gender and highest level of education attained

Figure 4 presents the proportion of male and female respondents by age and total. As shown, the proportion of male respondents in the total sample was 59 per cent against a proportion of 41 per cent for females. Of the respondents aged 25 years and below and 25-34 years, the proportion of male was 53 per cent against 47 per cent for females for each respectively. Of the respondents aged 35-44 years, the proportion of males and females was 62 per cent and 38 per cent respectively. We observe that the proportion of males tend to grow from younger to older age unlike the proportion of females which decrease with increase in the age.

Figure 4: Proportion of respondents by age and gender

	Male	Female
TOTAL	59%	41%
Below 25 years	53%	47%
25-34 years	53%	47%
35-44 years	62%	38%
45-49 years	82%	18%
50+ yrs	100%	0%

30
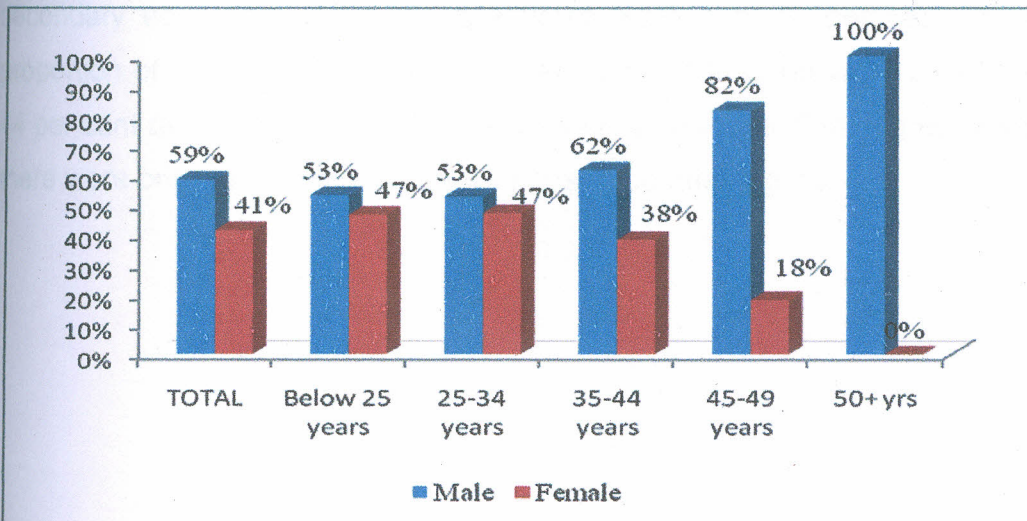
Figure 5 presents the proportion of male and female respondents by their marital status. Of the total respondents, 61 per cent were married while 38 per cent were still single/unmarried. The proportion of male and female respondents who were married has computed as 62 per cent and 59 per cent respectively. The proportion of respondents who were either separated or divorced ranged between 0 -2 per cent for total and among males and females.

Figure 5: Marital status of the respondents by gender and total
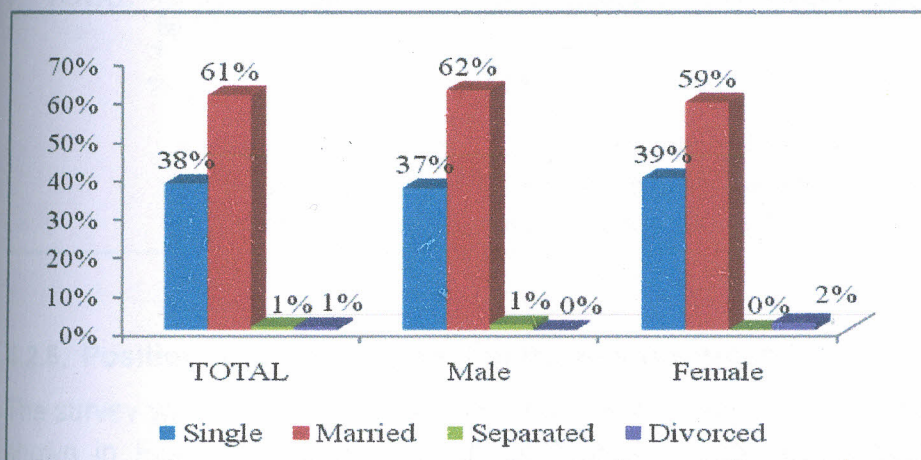
4.2.4. Highest Level of education attained by the respondents

Figure 6 present the proportion of respondents by the highest level of education attained. This has been done for total and for each gender. Of the total respondents, 46 per cent of them had a college certificate/diploma whilst 38 per cent had only completed secondary education. University graduates were only 10 per cent of the total. The proportion of males and females with secondary education were only 35 per cent and 44 per cent respectively. Whereas males with a university first degree were 17 per cent, there were only 4 per cent women with post graduate degree.

Figure 6: Percentage number of respondents by the highest education level attained
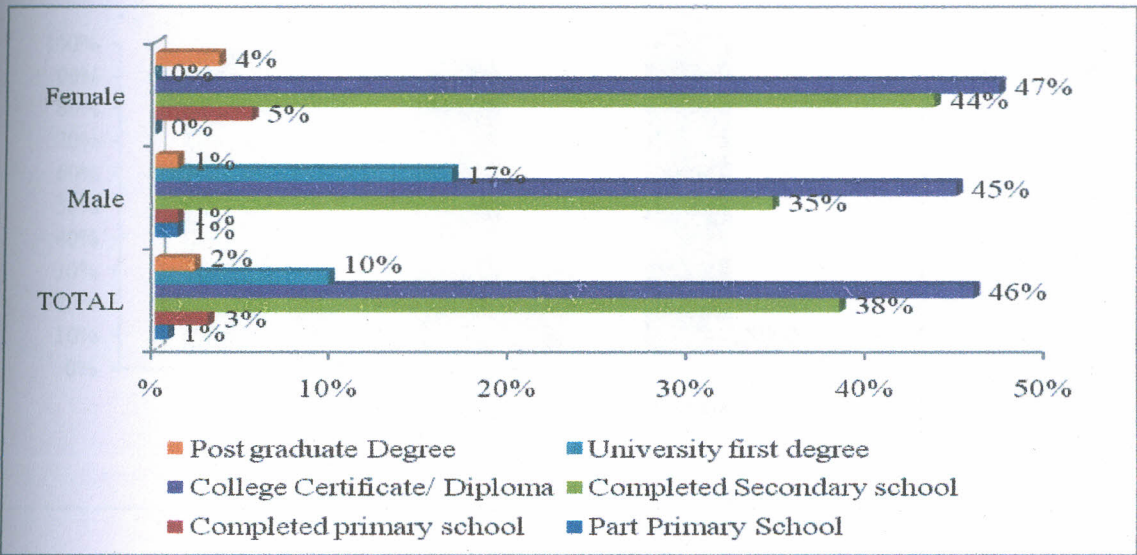
4.2.5. Position of the respondent in the establishment

The survey was only targeting the owner(s) and/or any member of the management. As shown in Figure 7 below, 53 per cent of the respondents were managers of the establishments/businesses visited whilst business owners comprised of 47 per cent of the total sample.

Figure 7: Proportion of respondents by their position in the establishment/enterprise
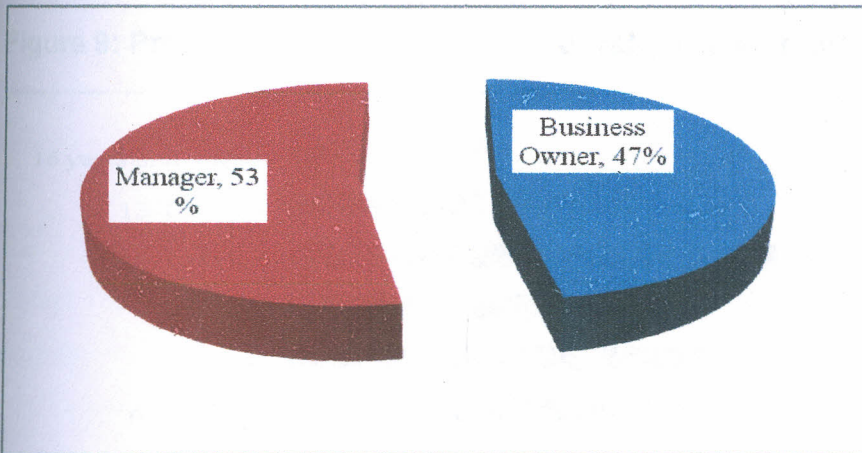
4.2.6. Religion of the respondents

90 per cent and 10 per cent of the respondents were Christian and Muslim respectively. We also see in Figure 8 below show that the proportion of male respondents who are Muslims was 10 per cent higher than 4 per cent of female Muslims.

Figure 8: Proportion of respondents by their religion
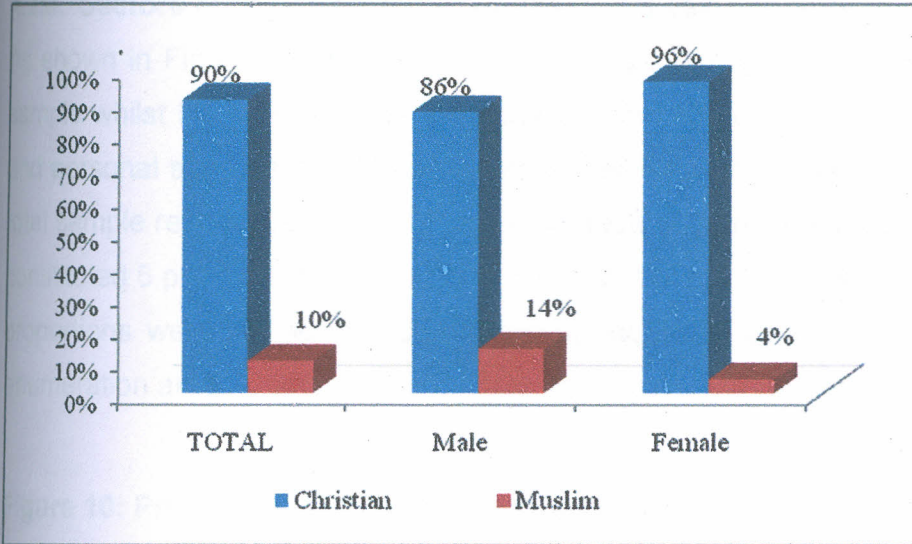
4.2.7. Duration in the current business

Further, the survey sought to establish the age of the enterprise/business. While 26 per cent and 22 per cent of the respondents indicated that their enterprises were in operation for a period between 10-12 years and 4-6 years respectively, 17 per cent of businesses had been operating for a period between 7-9 years and an equal proportion had only been operating for a period between 0-3 years. These results are presented in Figure 9 below.

Figure 9: Proportion of enterprises by duration (yrs) in the current business
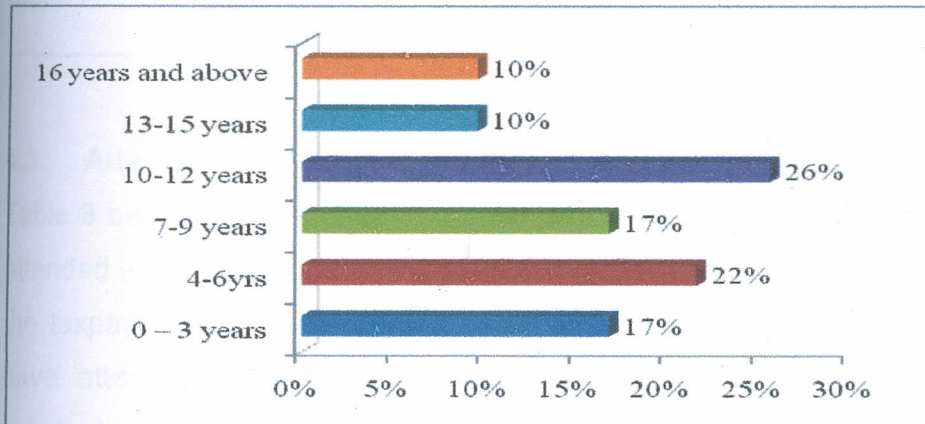
4.2.8. Sectors of the economy of the sampled establishments/enterprises

As shown in Figure 10, wholesale and trade alone constituted 35 per cent of the total sample whilst the proportion of enterprises selected from other community work, social and personal services and Hotels/Restaurants were 21 per cent and 12 per cent of the total sample respectively. Agriculture, manufacturing and Transport and Communication constituted 5 per cent, 4 per cent and 2 per cent of the total sample respectively. These proportions were as per the population strengths of establishments by sector in the enumeration area.

Figure 10: Proportion of sampled establishments by the sector of the economy
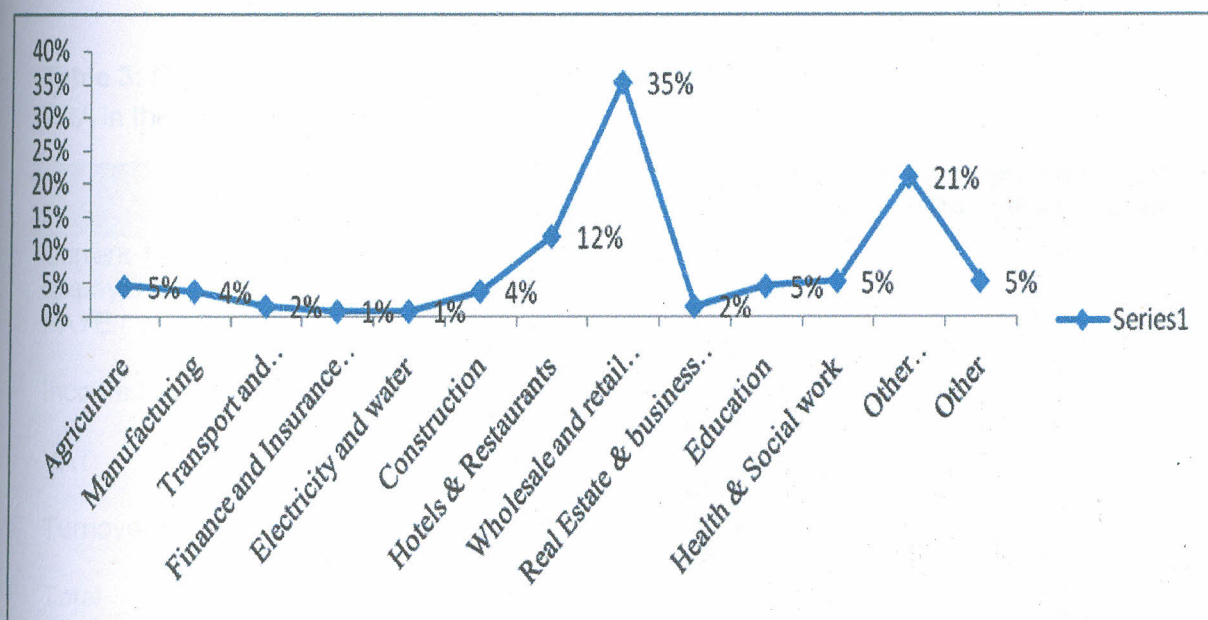
4.3. Attendance to a tax seminar organized by KRA in the last three years

Table 3 below presents the proportion of respondents of who indicated that they have attended a seminar/workshop organized by KRA in the last 3 years by the tax obligation the taxpayer is registered for. As shown, 63.6 per cent of the taxpayers interviewed have attended a KRA seminar/workshop before in the last 3 years whereas a substantial proportion (36.4 per cent) have not attended any KRA organized training in the last three year.

We also observe from the same Table that proportion of TOT registered taxpayers who have not attended any KRA seminar in the last 3 years is 41.7 per cent and is higher

than the proportion of VAT registered taxpayers who have not attended any KRA training which stands at 31.7 per cent.

We also see in Table 3 that all the three (3) taxpayers registered for PAYE have attended a seminar/workshop organized by KRA in the last 3 years. As shown, most taxpayers interviewed are registered for VAT (61 per cent=82/135) compared with the number of TOT registered taxpayers sampled (38 per cent = 36/135). 45 per cent = 61/135 are registered for income tax. Obviously these proportions do not add upto 100 per cent due to the fact that some taxpayers are registered for more than one tax obligation. The possible multiple combinations and which is in line with the relevant tax laws is either income tax and VAT or Turnover tax and income tax.

Table 3: Proportion of respondents who attended a seminar/workshop organized by KRA in the last 3 years by tax obligation

		Attended any tax seminar/workshop organized by KRA in the last 3 years		
Current Tax Obligation of the taxpayer		Yes	No	total
PAYE		3	0	3
	%	100	0	
Income tax	Count	39	22	61
	%	63.9	36.1	
VAT	Count	56.0	26.0	82
	%	68.3	31.7	
Turnover tax	Count	28.0	20.0	48
	%	58.3	41.7	
Total	Count	84	48	132
	%	63.6	36.4	

4.4. Online Filing

Whereas Kenya Revenue Authority provides a provision for taxpayers to file their returns online, we observe from Table 4 that 83.2 per cent of the total taxpayers sampled indicated that they have ever filed returns online whilst 16.8 per cent or 22 have never filed their returns online.

We also deduce from the same table that the number of taxpayers registered for income tax, VAT and TOT and have never filed returns online were 15 per cent, 16 per cent and

14 per cent – proportions that are too close indicating that taxpayer behaviour with filing is almost the same irrespective of the tax obligation any taxpayer is registered for.

Table 4: Proportion of taxpayers who have ever filed returns online by their tax obligation

Current Tax Obligation of the taxpayers		Filling of returns online	
		Yes	No
PAYE	Count	3	0
	% within PAYE	100	0
Income tax	Count	51	9
	% within Income Tax	85	15
VAT	Count	68	13
	% within VAT	84.0	16.0
Turnover tax	Count	43	7
	% within TOT	86	14
Total	Count	109	22
	%	83.2	16.8

4.5. Tax Returns

We observe from Table 5 that of the total respondents, 51 per cent engage the services of a tax agent to prepare their tax returns while 49 per cent prepare the returns by themselves. The Table further shows that the proportion of VAT and income tax registered respondents who engage the services of a tax agent to prepare the returns is higher at 60 per cent and 59 per cent respectively compared with only 41 per cent of TOT registered taxpayers whose tax returns are prepared by a tax agent.

Table 5: Proportion of respondents whose tax returns are prepared by themselves or a tax agent

Current Tax Obligation of the taxpayer		Who usually does filing for your returns	
		Self	Tax agent
PAYE	Count	1	2
	% within PAYE	33	67
Income tax	Count	25	36
	% within Income Tax	41	59
VAT	Count	33	50
	% within VAT	40	60
Turnover tax	Count	30	21
	% within TOT	59	41
Total	Count	65	69
	%	49	51

We also established that two taxpayers registered for VAT and Income tax have either failed to file a return and/or made their filing of returns late. One taxpayer registered for VAT revealed that he/she at one time made late payments of taxes.

Further, the study attempted to understand if there has been any significant shift with respect to the person who prepared the tax returns for the respondents during the period between 2011-2013. We observe from Figure 11 that the number the proportion of respondents indicating that their returns were prepared by an agent for 2011, 2012 and 2013 was 51.9 per cent, 51.5 per cent and 51.5 per cent respectively. We therefore deduce that the trend has remained almost the same during the three periods. Importantly to note here is that more VAT and Income tax registered taxpayers (an average of about 59.7 per cent in both cases) indicated that their tax returns are prepared by a tax agent compared with only 41.7 per cent of TOT taxpayers who indicated that their returns are equally prepared by an agent.

Figure 11: Proportion of respondents indicating that they prepared their tax returns and/or tax return prepared by the agent

4.6.   Tax Audits

Table 6 presents the proportion of respondents who have been audited by KRA before. As shown, 38.8 per cent or 52 of the respondents interviewed have been audited by KRA before whilst 61.2 per cent or 82 of them have never been audited.

Table 7: Number of respondents penalized as a result of non-compliance

Ever been penalized due to the following?	Yes	No	No. of times penalized
Failure to file a return	6 (4.5%)	128 (95.5%)	once -4 respondents, twice -2 respondents
Late filing	9 (6.7%)	125 (93.3%)	once-7 respondents, twice-2 respondents
Mis-reporting income	-	134 (100%)	-
Late payment of taxes due	4 (3%)	130 (97%)	once - 2 respondents, twice-2 respondents
Failure to use ETR	-	134 (100%)	-
Failure to register for your tax obligations	-	134 (100 %)	-

4.7.   Reliability test (Internal Validity)

Internal validity refers to cause-effect relationship among independent and dependent variables. It attempts to answer a very critical question- to what extent does the research design permit the researcher to conclude that the independent variable 'X' causes a change in the dependent variable 'Y' (Sekaran 2000:151). Research with high internal validity enables a researcher to better argue that a relationship is causal whereas low internal validity produces less valid results. (Sekaran 2000:151). Reliability tests measure the internal consistency and stability of the multi-item scales and the extent to which the measurement across the items in the questionnaires are biased (Hong, 2005).

Hair et. al. (2006:102,137) benchmarked data, stating that alphas of more than .70 are good enough to be analyzed in order to produce reliable and valid data, although this may decrease to .60 in exploratory research. Results (see Table 8) indicate that the value of Cronbach's alpha[1] for all the variables was averaged 0.796>0.7, which therefore imply that the instrument used was valid and of a high degree of reliability. Table 8 summarizes the results of reliability tests (Cronbach's Alpha) for all factors involved.

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[1] Since each factor is measured by three questions in the survey, this reliability test measures consistency responses in relation with the factor.

Table 8: Reliability tests- Cronbach's Alpha for variables

Main Variables	Sub-variables	Number of items	Cronbach's Alpha
Tax Knowledge	Income tax	13	0.834
	VAT	8	0.734
	TOT	15	0.9
Tax Compliance/Non compliance	Reasons why respondents will comply	14	0.8
	Reasons why respondents will not comply	9	0.91
Integrity		3	0.801
Total		62	0.796

Sections 4.8, 4.9 and 4.10 elaborates the characteristics of taxpayers' knowledge of various requirements by key demographic variables including gender, age, income level and education level, religion, race/ethnicity and attendance to taxpayer education organized by KRA. Furthermore, tests were carried out using T-tests, ANOVA and Correlational Analysis.

4.8. Awareness of Income tax requirements

Table 9 presents the proportion of respondents rating their extent of awareness of the income tax requirements as stipulated in the existing tax laws. As shown, 36.6 per cent and 40.3 per cent of the respondents rated their awareness of the 'monthly relief of Kshs. 1,162 for PAYE' and 'any employee earning less than Kshs. 11,135 monthly not eligible for PAYE' as moderate.

Other Income requirements with a significant number of respondents rating their awareness as moderate include the following; House allowance is subject to PAYE (44.8 per cent), PAYE year starts from 1st January and ends on 31st December (38.1 per cent), employee is entitled to receive a monthly pay slip from employer with the monthly pay and PAYE Tax deducted (60.2 per cent) and payment by employer to KRA is the 9th day of the month following pay-roll month (47.8 per cent).

However, we observe again in Table 9 that there was a significantly high number of respondents who indicated that they possess either 'little' or 'low' knowledge for the following income tax requirements;-

a) Any employee earning less than 11,135 monthly are not eligible for PAYE – 20.9 per cent

b) Tax free limit of monthly pension is Kshs. 15,000 – 29.3 per cent

c) PAYE applies to weekly wages and monthly salaries- 33.6 per cent

d) PAYE applies to weekly wages and monthly salaries – 33.6 per cent

e) Leave pay is subject to PAYE – 39.1 per cent

f) PAYE also applies to bonuses commissions and director's fees – 50.7 per cent

g) House allowance is subject to PAYE deductions -38.8 per cent

h) Resident individual is entitled to insurance relief at a rate of 15% of premiums – 41 per cent

i) Payment by employer to KRA is the 9th day of the month following pay-roll month – 26.1 per cent

Table 9: Awareness of income tax obligations by the respondents

Income tax requirement		Count	%
Monthly personal relief is Kshs. 1,162 for PAYE taxpayers	not at all	0	.0%
	Little	9	6.7%
	Low	13	9.7%
	Moderate	49	36.6%
	High	63	47.0%
Any employee earning less than 11,135 monthly are not eligible for PAYE	not at all	0	.0%
	Little	10	7.5%
	Low	18	13.4%
	Moderate	54	40.3%
	High	52	38.8%
Tax free limit of monthly pension is Kshs. 15,000	not at all	0	.0%
	Little	8	6.0%
	Low	31	23.3%
	Moderate	66	49.6%
	High	28	21.1%
PAYE applies to weekly wages and monthly salaries,	not at all	0	.0%
	Little	12	9.0%
	Low	33	24.6%
	Moderate	68	50.7%
	High	21	15.7%
Leave pay is subject to PAYE	not at all	3	2.3%
	Little	11	8.6%

Income tax requirement		Count	%
	Low	39	30.5%
	Moderate	61	47.7%
	High	14	10.9%
PAYE also applies to bonuses commissions and director's fees	not at all	0	.0%
	Little	14	10.4%
	Low	54	40.3%
	Moderate	51	38.1%
	High	15	11.2%
House allowance is subject to PAYE deductions	not at all	1	.7%
	Little	9	6.7%
	Low	43	32.1%
	Moderate	60	44.8%
	High	21	15.7%
PAYE year runs from 1st January to 31st December	not at all	1	.7%
	Little	5	3.7%
	Low	28	20.9%
	Moderate	51	38.1%
	High	49	36.6%
Tax returns should be made on or before 30th June of the following year	not at all	1	.7%
	Little	3	2.2%
	Low	27	20.1%
	Moderate	52	38.8%
	High	51	38.1%
Resident individual is entitled to insurance relief at a rate of 15% of premiums	not at all	1	.7%
	Little	13	9.7%
	Low	42	31.3%
	Moderate	44	32.8%
	High	34	25.4%
Employee is entitled to receive a monthly pay slip from employer with the monthly pay and PAYE Tax deducted	not at all	0	.0%
	Little	4	3.0%
	Low	23	17.3%
	Moderate	80	60.2%
	High	26	19.5%
Payment by employer to KRA is the 9th day of the month following pay-roll month	not at all	0	.0%
	Little	5	3.7%
	Low	30	22.4%
	Moderate	64	47.8%
	High	35	26.1%
Late or failure to pay PAYE payments attract a penalty of 20% and interest of 2% of the amount paid late	not at all	0	.0%
	Little	5	3.8%
	Low	21	15.8%
	Moderate	51	38.3%
	High	56	42.1%

4.9. Awareness of VAT requirements

Table 10 presents the awareness of VAT requirements by the respondents. As shown. 92.6 per cent of the taxpayers are either 'moderately' or 'highly' aware that the VAT Act, 2014 provides for only 0 per cent and 16 per cent VAT rates.

Generally, we observe that most taxpayers are aware of the VAT requirements with the proportion of those indicating that their knowledge about the following is either 'moderate' or 'high'

a) VAT is due and payable at the time of supply -84.3 per cent
b) VAT amount that remain unpaid attracts an interest of 2% per month – 77.4 per cent
c) VAT records can be kept in both English and Kiswahili – 81. 5 per cent

We also observe that the proportion of respondents indicating that they have 'little' or 'low' knowledge about the following VAT requirements;-

a) A VAT taxpayer may defer payment of tax due to a date not later than the twentieth day of the month succeeding date of payment- 35.6 per cent
b) VAT amount that remain unpaid attracts an interest of 2% per month – 22.5 per cent
c) A credit note is valid for 6 months from the date of supply – 46.4 per cent
d) A taxpayer may apply for a VAT refund within 3months from the date the tax became due and payable – 37.6 per cent
e) Taxpayers who do not meet the threshold for VAT can voluntarily register – 29.4 per cent

Table 10: Awareness of VAT requirements by the respondents

VAT Tax requirements		Count	%
The VAT ACT 2013 provides for only the 0%and the 16% VAT rates.	not at all	0	.0%
	Little	1	.7%
	Low	9	6.7%
	Moderate	34	25.4%
	High	90	67.2%
VAT is due and payable at the time of supply	not at all	1	.7%
	Little	3	2.2%
	Low	17	12.7%
	Moderate	56	41.8%

	High	57	42.5%
A VAT taxpayer may defer payment of tax due to a date not later than the twentieth day of the month succeeding date of payment	not at all	2	1.5%
	Little	15	11.4%
	Low	30	22.7%
	Moderate	53	40.2%
	High	32	24.2%
VAT amount that remain unpaid attracts an interest of 2% per month	not at all	0	.0%
	Little	6	4.5%
	Low	24	18.0%
	Moderate	76	57.1%
	High	27	20.3%
A credit note is valid for 6 months from the date of supply	not at all	13	9.9%
	Little	22	16.8%
	Low	39	29.8%
	Moderate	38	29.0%
	High	19	14.5%
A taxpayer may apply for a VAT refund within 3months from the date the tax became due and payable	not at all	1	.8%
	Little	9	6.8%
	Low	41	30.8%
	Moderate	60	45.1%
	High	22	16.5%
Taxpayers who do not meet the threshold for VAT can voluntarily register	not at all	2	1.5%
	Little	6	4.5%
	Low	32	23.9%
	Moderate	73	54.5%
	High	21	15.7%
VAT records can be kept in both English and Kiswahili	not at all	1	.8%
	Little	4	3.1%
	Low	19	14.6%
	Moderate	54	41.5%
	High	52	40.0%

4.10. Awareness of Turnover requirements by the respondents

From Table 11, we observe that the proportion of respondents indicating that they are either 'not aware at all' or 'with little or moderate' were significantly too high for TOT compared with both VAT and Income tax including for the following cases;

- Tax head is applicable to any resident person whose annual turnover from business exceeds Kshs. 500,000 and does not exceed Kshs. 5 Million – 28 per cent

- TOT is charged at the rate 3% on gross sales – 38 per cent

- TOT is a final Tax – 59.7 per cent

- Expenditure or capital allowance is not granted against turnover tax – 63.2 per cent

- Unpaid tax attracts interest at a rate of 2% per month – 43.3 per cent

- Turnover tax is not applicable to limited companies, rental income, professional or management fees -66.4 per cent

- No personal relief is granted – 44.9 per cent

- Tax period means every 3 calendar months commencing 1st January of every year – 44.7 per cent

- The TOT taxpayer is required to submit a quarterly return – 71.6 per cent

- TOT return is on a prescribed form TOT 3 – 70.2 per cent

- A taxpayer has a right to object to any assessment issued by the Commissioner- 73.2 per cent

- A taxpayer may remit tax due on monthly basis and offset the tax paid in the tax return – 61.2 per cent.

This high unawareness of TOT may explain its underperformance in the last couple of years.

Table 11: Awareness of the Turnover tax requirements

TOT requirements		Count	%
Tax head is applicable to any resident person whose annual turnover from business exceeds Kshs. 500,000 and does not exceed Kshs. 5 Million	not at all	4	3.0%
	Little	19	14.4%
	Low	14	10.6%
	Moderate	26	19.7%
	High	69	52.3%
TOT is charged at the rate 3% on gross sales	not at all	3	2.2%
	Little	22	16.4%
	Low	26	19.4%
	Moderate	39	29.1%
	High	44	32.8%
TOT is a final Tax	not at all	3	2.2%
	Little	25	18.7%

	Low	52	38.8%
	Moderate	41	30.6%
	High	13	9.7%
Expenditure or capital allowance is not granted against turnover tax	not at all	7	5.3%
	Little	25	18.8%
	Low	52	39.1%
	Moderate	42	31.6%
	High	7	5.3%
Unpaid tax attracts interest at a rate of 2% per month	not at all	8	6.0%
	Little	16	11.9%
	Low	34	25.4%
	Moderate	51	38.1%
	High	25	18.7%
Submission of a return without payment of taxes due attract a default penalty of Kshs. 2,000	not at all	8	6.0%
	Little	10	7.5%
	Low	22	16.4%
	Moderate	41	30.6%
	High	53	39.6%
Turnover tax is not applicable to limited companies, rental income, professional or management fees	not at all	13	9.7%
	Little	26	19.4%
	Low	50	37.3%
	Moderate	40	29.9%
	High	5	3.7%
No personal relief is granted	not at all	9	7.1%
	Little	19	15.0%
	Low	29	22.8%
	Moderate	62	48.8%
	High	8	6.3%
Tax period means every 3 calendar months commencing 1st January of every year	not at all	2	1.5%
	Little	19	14.4%
	Low	38	28.8%
	Moderate	54	40.9%
	High	19	14.4%
Taxpayer registered for TOT is supposed to maintain cash books, Sales receipts, invoices, daily sales summary, purchase invoices and bank statements	not at all	5	3.7%
	Little	17	12.7%
	Low	21	15.7%
	Moderate	36	26.9%
	High	55	41.0%
The TOT taxpayer is required to submit a quarterly return.	not at all	3	2.2%
	Little	26	19.4%
	Low	67	50.0%
	Moderate	25	18.7%
	High	13	9.7%
Payment is supposed to be made on or before the 20th day of	not at all	6	4.5%

the month immediately following end of the quarter	Little	14	10.4%
	Low	24	17.9%
	Moderate	69	51.5%
	High	21	15.7%
TOT return is on a prescribed form TOT 3	not at all	23	17.2%
	Little	38	28.4%
	Low	33	24.6%
	Moderate	35	26.1%
	High	5	3.7%
A taxpayer has a right to object to any assessment issued by the Commissioner	not at all	17	12.7%
	Little	38	28.4%
	Low	43	32.1%
	Moderate	27	20.1%
	High	9	6.7%
A taxpayer may remit tax due on monthly basis and offset the tax paid in the tax return	not at all	8	6.0%
	Little	29	21.6%
	Low	45	33.6%
	Moderate	35	26.1%
	High	17	12.7%

4.11. Using T-tests and one way ANOVA to test if any difference exist for tax knowledge (Income tax, VAT & TOT) against key demographic factors

4.11.1. Gender

A t-test was carried out to establish if the means of two groups (i.e. males and females) were statistically different from each other. Table 12 illustrates the results of t-test between males and females in the sample.

Table 12: T-test for means of tax awareness by Gender

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Income Tax							
Monthly personal relief is Kshs. 1,162 for PAYE taxpayers	0.27	121.40	0.79	0.04	0.15	-0.26	0.35
Any employee earning less than 11,135 monthly are not eligible for PAYE	-0.81	119.70	0.42	-0.13	0.16	-0.44	0.19

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Tax free limit of monthly pension is Kshs. 15,000	0.25	124.00	0.80	0.04	0.14	-0.24	0.32
PAYE applies to weekly wages and monthly salaries,	1.93	124.31	0.06	0.27	0.14	-0.01	0.56
Leave pay is subject to PAYE	0.87	105.93	0.39	0.14	0.16	-0.18	0.46
PAYE also applies to bonuses commissions and director's fees	1.75	127.78	0.08	0.25	0.14	-0.03	0.52
House allowance is subject to PAYE deductions	2.54	118.46	0.01	0.37	0.15	0.08	0.66
PAYE year runs from 1st January to 31st December	0.07	108.77	0.95	0.01	0.16	-0.31	0.33
Tax returns should be made on or before 30th June of the following year	-0.35	115.06	0.73	-0.05	0.15	-0.35	0.25
Resident individual is entitled to insurance relief at a rate of 15% of premiums	1.35	116.93	0.18	0.23	0.17	-0.11	0.57
Employee is entitled to receive a monthly pay slip from employer with the monthly pay and PAYE Tax deducted	-0.27	110.03	0.79	-0.03	0.13	-0.28	0.22
Payment by employer to KRA is the 9th day of the month following pay-roll month	-0.68	122.35	0.50	-0.09	0.14	-0.37	0.18
Late or failure to pay PAYE payments attract a penalty of 20% and interest of 2% of the amount paid late	-0.10	128.54	0.92	-0.01	0.14	-0.30	0.27
VAT							
The VAT ACT 2013 provides for only the 0%and the 16% VAT rates.	0.54	117.65	0.59	0.06	0.11	-0.17	0.29
VAT is due and payable at the time of supply	-1.06	108.28	0.29	-0.15	0.15	-0.44	0.13
A VAT taxpayer may defer payment of tax due to a date not later than the twentieth day of the month succeeding date of payment	-0.59	108.17	0.56	-0.11	0.18	-0.46	0.25
VAT amount that remain unpaid attracts an interest of 2% per month	0.28	119.90	0.78	0.04	0.13	-0.22	0.30
A credit note is valid for 6 months from the date of supply	-0.61	122.64	0.55	-0.13	0.21	-0.54	0.28
A taxpayer may apply for a VAT refund within 3months from the date the tax became due and payable	0.24	118.76	0.81	0.04	0.15	-0.26	0.33
Taxpayers who do not meet the threshold for VAT can voluntarily register	-0.43	96.02	0.67	-0.07	0.15	-0.36	0.23
VAT records can be kept in both English and Kiswahili	1.91	99.96	0.06	0.29	0.15	-0.01	0.60
TOT							
Tax head is applicable to any resident person whose annual turnover from	2.60	100.78	0.01	0.57	0.22	0.13	1.00

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
business exceeds Kshs. 500,000 and does not exceed Kshs. 5 Million							
TOT is charged at the rate 3% on gross sales	2.21	115.72	0.03	0.44	0.20	0.05	0.84
TOT is a final Tax	2.25	117.94	0.03	0.37	0.16	0.04	0.70
Expenditure or capital allowance is not granted against turnover tax	2.63	113.60	0.01	0.44	0.17	0.11	0.77
Unpaid tax attracts interest at a rate of 2% per month	2.37	115.62	0.02	0.46	0.19	0.07	0.84
Submission of a return without payment of taxes due attract a default penalty of Kshs. 2,000	2.61	109.97	0.01	0.54	0.21	0.13	0.95
Turnover tax is not applicable to limited companies, rental income, professional or management fees	2.68	119.87	0.01	0.47	0.17	0.12	0.81
No personal relief is granted	1.42	100.80	0.16	0.27	0.19	-0.11	0.65
Tax period means every 3 calendar months commencing 1st January of every year	2.07	112.94	0.04	0.35	0.17	0.01	0.68
Taxpayer registered for TOT is supposed to maintain cash books, Sales receipts, invoices, daily sales summary, purchase invoices and bank statements	2.87	98.90	0.01	0.61	0.21	0.19	1.02
The TOT taxpayer is required to submit a quarterly return.	-0.39	111.29	0.70	-0.06	0.16	-0.39	0.26
Payment is supposed to be made on or before the 20th day of the month immediately following end of the quarter	0.44	120.20	0.66	0.08	0.18	-0.27	0.43
TOT return is on a prescribed form TOT 3	0.72	119.43	0.47	0.14	0.20	-0.25	0.54
A taxpayer has a right to object to any assessment issued by the Commissioner	0.28	125.31	0.78	0.05	0.19	-0.33	0.43
A taxpayer may remit tax due on monthly basis and offset the tax paid in the tax return	0.64	119.53	0.52	0.12	0.19	-0.26	0.50

As shown, we observe that the associated p values for most tax requirements for Turnover tax were ranging between 0.01 and 0.04 (2-tailed test), hence we reject the null hypothesis that the means for the awareness of TOT for males and females are the same and conclude that there is a significant difference in TOT tax awareness for males and females. However, there is no significant difference in VAT and Income Tax awareness for males and females.

4.11.2. Age

Table 13 and Table 14 presents the output of the ANOVA analysis for factors that the means were found to be statistically different by age. Except for the two TOT factors presented herein below in Table 13 and 14, with significance level ranging between 0.026 and 0.021 which are all below 0.05. We therefore conclude that there is a statistically significant difference in the mean awareness of these two TOT tax requirements between different age groups. Importantly to note is that there exists no statistical significant difference in the means awareness of ALL tax awareness for Income tax and VAT between different age groups.

Table 13: Output of ANOVA analysis for 'Turnover is not applicable to limited companies, rental income, professional or management fees' versus Age

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.761	4	2.94	3.005	0.021

Table 14: Output of ANOVA analysis for TOT return is on a prescribed form TOT3 versus Age

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.761	4	2.94	3.005	0.021
Between Groups	14.198	4	3.55	2.872	0.026
Within Groups	159.451	129	1.236		
Total	173.649	133			

4.11.3. Marital status

Table 15 and Table 16 present the output of the ANOVA analysis for factors that the means were found to be statistically different by marital status. Except for the two TOT factors presented herein below with significance level ranging between 0.03 – expenditure or capital allowance is not granted against turnover tax and 0.026 - TOT is a final tax which are all below 0.05. We conclude that there is a statistically significant difference in the mean awareness of these two TOT tax requirements between different

marital status of the respondents. However, we take note that there exists no statistical significant difference in the means awareness of ALL tax awareness for Income tax and VAT between different marital statuses.

Table 15: Output of ANOVA analysis for 'TOT is a final tax' versus Marital status

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.263	3	2.754	3.195	0.026
Within Groups	112.065	130	0.862		
Total	120.328	133			

Table 16: Output of ANOVA analysis for 'Expenditure or capital allowance is not granted against turnover tax' versus marital status

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.054	3	2.685	3.071	0.03
Within Groups	112.774	129	0.874		
Total	120.827	132			

4.11.4. Education level

Table 15 presents the output of the ANOVA analysis for factors that the means were found to be statistically different by education level. We observe that most Income tax, VAT and TOT factors had significance levels ranging between 0.03 and 0.031 which are all below 0.05. We therefore conclude that there is a statistically significant difference in the means of tax requirements between different education levels of the respondents. Hence, low education translates to minimal awareness of tax requirements and vice versa.

Table 17: Output of ANOVA analysis for factors with means found to be statistically different by Education level

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Monthly personal relief is Kshs. 1,162	Between Groups	12.598	5	2.52	3.484	0.006

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig
for PAYE taxpayers	Within Groups	91.122	126	0.723		
	Total	103.72	131			
House allowance is subject to PAYE deductions	Between Groups	9.348	5	1.87	2.762	0.021
	Within Groups	85.288	126	0.677		
	Total	94.636	131			
PAYE year runs from 1st January to 31st December	Between Groups	13.098	5	2.62	3.571	0.005
	Within Groups	92.417	126	0.733		
	Total	105.515	131			
Tax returns should be made on or before 30th June of the following year	Between Groups	12.431	5	2.486	3.803	0.003
	Within Groups	82.38	126	0.654		
	Total	94.811	131			
Payment by employer to KRA is the 9th day of the month following pay-roll month	Between Groups	8.048	5	1.61	2.68	0.024
	Within Groups	75.679	126	0.601		
	Total	83.727	131			
Late or failure to pay PAYE payments attract a penalty of 20% and interest of 2% of the amount paid late	Between Groups	9.785	5	1.957	3.013	0.013
	Within Groups	81.177	125	0.649		
	Total	90.962	130			
VAT records can be kept in both English and Kiswahili	Between Groups	12.434	5	2.487	3.803	0.003
	Within Groups	79.785	122	0.654		
	Total	92.219	127			
Tax head is applicable to any resident person whose annual turnover from business exceeds Kshs. 500,000 and does not exceed Kshs. 5 Million	Between Groups	22.674	5	4.535	3.305	0.008
	Within Groups	170.134	124	1.372		
	Total	192.808	129			
TOT is charged at the rate 3% on gross sales	Between Groups	16.075	5	3.215	2.594	0.029
	Within Groups	156.167	126	1.239		
	Total	172.242	131			
Expenditure or capital allowance is not granted against turnover tax	Between Groups	12.299	5	2.46	2.854	0.018
	Within Groups	107.747	125	0.862		
	Total	120.046	130			
Turnover tax is not applicable to limited companies, rental income, professional or management fees	Between Groups	15.283	5	3.057	3.164	0.01
	Within Groups	121.709	126	0.966		
	Total	136.992	131			
No personal relief is granted	Between Groups	13.127	5	2.625	2.552	0.031
	Within Groups	122.425	119	1.029		
	Total	135.552	124			
Taxpayer registered for TOT is supposed to maintain cash books, Sales receipts, invoices, daily sales summary, purchase invoices and bank statements	Between Groups	24.662	5	4.932	3.851	0.003
	Within Groups	161.398	126	1.281		
	Total	186.061	131			

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig
A taxpayer may remit tax due on monthly basis and offset the tax paid in the tax return	Between Groups	13.813	5	2.763	2.409	0.04
	Within Groups	144.52	126	1.147		
	Total	158.333	131			

4.11.5.   Religion

Table 16 presents the output of the ANOVA analysis for factors that the means were found to be statistically different by religion. We observe that the factors presented in Table 16 have significance levels ranging between 0.002 and 0.038 which are all below 0.05. We therefore conclude that there is a statistically significant difference in the means of tax requirements by religion of the respondents. A closer look for means indicate that Muslims are more aware that tax free limit of monthly pension is Kshs.15, 000 with a mean of 4.3 compared with Christian's 3.8. Similarly, the study tend to suggest that more Muslims than Christians are aware that PAYE applies to weekly wages and monthly salaries as well (with a mean of 4.2 compared with a mean of 3.7 for Christians), leave pay is subject to PAYE (mean of 4.1 for Muslims against a mean of 3.5 for Christians), PAYE applies to bonuses, commissions and director's fees (mean of 4 for Muslims against a mean of 3.5 for Christians), house allowance is subject to PAYE deductions (mean of 4.3 for Muslims against a mean of 3.6 for Christians).

For TOT, we deduce that more Muslims (with a mean of 4.3) are more aware that tax period in TOT means every 3 calendar months commencing 1st January of every year compared with a mean of 3.4 computed among Christian respondents. We also deduce that more Muslims (with a mean of 4.3) are more aware that TOT payments are supposed to be made on or before 20th of the month immediately following the end of the quarter against a mean of 3.5 computed for Christian respondents.

Table 18: Output of ANOVA analysis for factors with means found to be statistically different by religion

ANOVA						
PAYE Tax free limit of monthly pension is Kshs. 15,000		Sum of Squares	df	Mean Square	F	Sig.

	Between Groups	3.115	1	3.115	4.954	0.028
	Within Groups	74.185	118	0.629		
	Total	77.3	119			
PAYE applies to weekly wages and monthly salaries,	Between Groups	3.303	1	3.303	4.721	0.032
	Within Groups	83.259	119	0.7		
	Total	86.562	120			
Leave pay is subject to PAYE	Between Groups	4.506	1	4.506	6.159	0.015
	Within Groups	84.127	115	0.732		
	Total	88.632	116			
PAYE also applies to bonuses commissions and director's fees	Between Groups	2.853	1	2.853	4.397	0.038
	Within Groups	77.229	119	0.649		
	Total	80.083	120			
House allowance is subject to PAYE deductions	Between Groups	5.301	1	5.301	7.512	0.007
	Within Groups	83.988	119	0.706		
	Total	89.289	120			
TOT						
Tax period means every 3 calendar months commencing 1st January of every year	Between Groups	9.175	1	9.175	10.465	0.002
	Within Groups	102.573	117	0.877		
	Total	111.748	118			
Payment is supposed to be made on or before the 20th day of the month immediately following end of the quarter	Between Groups	5.714	1	5.714	5.421	0.022
	Within Groups	125.443	119	1.054		
	Total	131.157	120			

4.11.6.   Duration in the business

Table 16 presents the output of the ANOVA analysis for factors that the means were found to be statistically different by age of the business. We observe that the TOT factors presented in the table had significance levels ranging between 0.002 and 0.026 which are all below 0.05. We therefore conclude that there is a statistically significant difference in the means of TOT tax requirements by age of the business. Businesses with only upto 6 years of operations returned a mean of between 3.2 and 3.7 compared with means ranging between 4 and 4.7 for business which were in operation for seven (7) years and over for awareness that TOT is applicable for resident personal with an annual turnover from business exceeds Kshs. 500,000 and does not exceed Kshs. 5

Million. We also observed the mean of 'younger establishments2' was lower than the means for 'older enterprises3' for awareness of the TOT rates of 3% of gross sales, unpaid tax attracts interest at a rate of 2 per cent per month and submission of a return without payment of taxes due attracts a default penalty of Kshs. 2,000.

Table 19: Output of ANOVA analysis for factors with means found to be statistically different by the age of the business

ANOVA						
TOT		Sum of Squares	df	Mean Square	F	Sig.
Tax head is applicable to any resident person whose annual turnover from business exceeds Kshs. 500,000 and does not exceed Kshs. 5 Million	Between Groups	27.942	5	5.588	4.076	0.002
	Within Groups	159.05	116	1.371		
	Total	186.992	121			
TOT is charged at the rate 3% on gross sales	Between Groups	23.476	5	4.695	3.9	0.003
	Within Groups	142.072	118	1.204		
	Total	165.548	123			
Unpaid tax attracts interest at a rate of 2% per month	Between Groups	15.877	5	3.175	2.774	0.021
	Within Groups	135.09	118	1.145		
	Total	150.968	123			
Submission of a return without payment of taxes due attract a default penalty of Kshs. 2,000	Between Groups	18.095	5	3.619	2.659	0.026
	Within Groups	160.575	118	1.361		
	Total	178.669	123			

4.11.7.   Attendance to a tax workshop/seminar

A t-test was carried out to establish if the means of two groups (i.e. those who had attended KRA workshop/seminar versus those who had not) were statistically different from each other. Table 18 illustrates the results of t-test between the two groups.

As shown, we observe that the associated p values for 2 VAT and four (4) TOT tax requirements are ranging between 0.00 and 0.034 (2-tailed test), hence we reject the null hypothesis that the means for the awareness of these six tax requirements among those who have attended a tax workshop/seminar is the same as those who have never

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[2] Younger establishments – with years of operation upto 6 years

3 Older Enterprises – With 7 years of operation and behold

55

attended any tax workshop/seminar in the last three (3) years. Hence we conclude that there is a significant difference in awareness of VAT and TOT tax requirements for the two groups. The mean of respondents who indicated that a VAT taxpayer may defer payment of tax due to a date later than the 20th of the month succeeding date of payment was 3.9 for those who had attended a KRA seminar/workshop before against a mean of 3.4 for those who had not attended a KRA workshop/seminar – implying a slightly higher awareness of tax requirements among respondents who have attended KRA seminar/workshop. Similarly, the mean for those who had attended a KRA seminar/workshop for the awareness of VAT requirement that a credit note is valid for 6 months from the date of supply was 3.4 against a mean of only 2.8 for the untrained respondents. The same trend was observed for TOT with the awareness of 'TOT return to be done on prescribed form TOT 3' means for those who have attended KRA seminar/workshop against those who have not being computed as 3 and 2.2 respectively.

Table 20: Output of t-test Equality of means of tax awareness by attendance to a tax workshop/seminar

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
VAT							
A VAT taxpayer may defer payment of tax due to a date not later than the twentieth day of the month succeeding date of payment	2.157	82.811	0.034	0.410	0.190	0.032	0.788
A credit note is valid for 6 months from the date of supply	2.328	80.211	0.022	0.526	0.226	0.076	0.976
TOT							
TOT is a final Tax	2.473	107.129	0.015	0.410	0.166	0.081	0.738
TOT return is on a prescribed form TOT	3.585	90.145	0.001	0.729	0.203	0.325	1.133
A taxpayer has a right to object to any assessment issued by the Commissioner	4.285	112.15	0.000	0.775	0.181	0.417	1.134
A taxpayer may remit tax due on monthly basis and offset the tax paid in the tax return	4.161	101.575	0.000	0.774	0.186	0.405	1.142

4.11.8. If taxpayer has been audited before

A t-test was carried out to establish if the means of two groups (i.e. those who had been audited versus those who had not) were statistically different from each other. Table 19 illustrates the results of t-test between the two groups.

As shown, we observe that the associated p values for Six (6) PAYE, seven (7) VAT and twelve (12) TOT tax requirements are ranging between 0.00 and 0.04 (2-tailed test), hence we reject the null hypothesis that the means for the awareness of these tax requirements among those who have been audited before and those who have never been audited. Hence we conclude that there is a significant difference in awareness of tax requirements for respondents audited before and those who have never been audited. The means of respondents who had been audited before were significantly higher than for the taxpayers who had not been audited before –implying that taxpayers previously audited possess a significantly high knowledge about tax awareness compared with those who have not been audited before.

Table 21: Output of t-test Equality of means of tax awareness by attendance to a tax workshop/seminar

	Independent Samples Test				
	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
PAYE				Lower	Upper
Monthly personal relief is Kshs. 1,162 for PAYE taxpayers	0.00	0.710	0.128	0.457	0.963
Any employee earning less than 11,135 monthly are not eligible for PAYE	0.00	0.835	0.127	0.583	1.087
Tax free limit of monthly pension is Kshs. 15,000	0.004	0.391	0.132	0.129	0.653
PAYE applies to weekly wages and monthly salaries,	0.002	0.408	0.128	0.154	0.662
Leave pay is subject to PAYE	0.003	0.422	0.140	0.145	0.700
PAYE year runs from 1st January to 31st December	0.02	0.374	0.158	0.061	0.687
VAT					
Tax returns should be made on or before 30th June of the following year	0.00	0.540	0.141	0.261	0.818
Payment by employer to KRA is the 9th day of the month following pay-roll month	0.001	0.470	0.132	0.207	0.732

	Independent Samples Test				
	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Late or failure to pay PAYE payments attract a penalty of 20% and interest of 2% of the amount paid late	0.00	0.713	0.126	0.464	0.962
VAT is due and payable at the time of supply	0.00	-0.504	0.137	-0.775	-0.233
A VAT taxpayer may defer payment of tax due to a date not later than the twentieth day of the month succeeding date of payment	0.00	-0.667	0.170	-1.004	-0.330
A credit note is valid for 6 months from the date of supply	0.00	-0.832	0.206	-1.240	-0.423
VAT records can be kept in both English and Kisw7ahili	0.001	0.482	0.146	0.192	0.771
TOT					
Tax head is applicable to any resident person whose annual turnover from business exceeds Kshs. 500,000 and does not exceed Kshs. 5 Million	0.00	1.089	0.167	0.758	1.419
TOT is charged at the rate 3% on gross sales	0.00	1.024	0.164	0.699	1.348
TOT is a final Tax	0.012	0.409	0.160	0.092	0.727
Unpaid tax attracts interest at a rate of 2% per month	0.00	0.950	0.170	0.613	1.287
Submission of a return without payment of taxes due attract a default penalty of Kshs. 2,000	0.00	1.007	0.172	0.666	1.348
No personal relief is granted	0.00	0.720	0.161	0.402	1.038
Tax period means every 3 calendar months commencing 1st January of every year	0.04	0.343	0.165	0.016	0.671
Taxpayer registered for TOT is supposed to maintain cash books, Sales receipts, invoices, daily sales summary, purchase invoices and bank statements	0.00	1.031	0.168	0.699	1.364
Payment is supposed to be made on or before the 20th day of the month immediately following end of the quarter	0.023	0.378	0.164	0.054	0.701
TOT return is on a prescribed form TOT 3	0	-0.813	0.184	-1.178	-0.448
A taxpayer has a right to object to any assessment issued by the Commissioner	0.004	-0.551	0.189	-0.925	-0.177
A taxpayer may remit tax due on monthly basis and offset the tax paid in the tax return	0.092	-0.324	0.191	-0.702	0.054

4.12. Summary of the results for 4.11 – Characteristics of respondents with high/low tax obligations awareness

In conclusion, the above tests suggest that tax knowledge is influenced by gender, age, marital status, education level, religion, age of the business, attendance to KRA tax seminar/workshop and taxpayers subjected/not subjected to audit. These results are herein summarized below.

a) Gender – The awareness of tax obligations for VAT and Income tax is same for both males and females. However, awareness of tax obligations for TOT is different for males and females.

b) Age – The awareness of tax obligations for VAT and Income tax is same across different age groups. However, awareness of TOT obligations is different across age groups with younger age posting a slightly lower awareness compared to those aged 50+ years.

c) Marital status - The awareness of tax obligations for VAT and Income tax is same across respondents of different marital status. However, awareness of TOT obligations is different among the married and single respondents - with single respondents posting a slightly lower awareness compared to the married respondents.

d) Education level – The awareness of tax obligations for Income tax, VAT and TOT is different between varying education levels of the respondents - lowly educated taxpayers have minimal awareness of tax requirements and vice versa.

e) Religion – The awareness of tax obligations for income tax, VAT and TOT is different for both Christians and Muslims – Muslims were found to be more knowledgeable with a couple of obligations compared with their Christian counterparts.

f) Age of the business -- The awareness of tax obligations for VAT and Income tax is same across all enterprises irrespective of the age of the establishment. However, awareness of TOT obligations is different between newly registered companies (upto 6 years or so) and older enterprises (7+ years old) – newly enterprises posted a slightly lower awareness compared to those which have been in operation for 7 years or more.

g) Attendance to KRA workshop/Seminar – The awareness of VAT and TOT tax obligations was found to be different between taxpayers who have attended KRA

taxpayer education/seminar and those who have not – those who have attended KRA seminars/workshops posted a significantly higher awareness.

h) Taxpayers subjected/not subjected to Audit before – The analysis has established that respondents audited before possess a significantly higher knowledge about tax obligations for Income tax, VAT and TOT compared with those who have not been audited before.

4.13. Effect of awareness of tax obligations and tax compliance behaviour

This section describes the objective and variable measurement, hypotheses development and data analysis techniques for Stage 2 of our analysis which sought to explore the relationship between tax knowledge and tax compliance behaviour.

Eriksen and Fallan, (1996) claimed that "no study has been done to investigate which parts of tax knowledge have the greatest effect on attitude toward taxation."(Eriksen and Fallan, 1996:399). Thus, this stage attempts to contribute to the filling of this gap as suggested by Eriksen and Fallan and to answer the research questions (refer 1.4) - 'Does tax knowledge affect tax compliance? Which tax knowledge variables (elements) significantly correlate with tax compliance behaviour?'

The independent variables on tax knowledge encompass all variables that were seeking the extent of awareness of Income tax, VAT and TOT taxpayer obligations.

4.13.1. The hypothesis Hypotheses development

The influence of tax knowledge on compliance behaviour has been described in various research (e.g. Mohamad Ali et. al., 2007). The level of education received by taxpayers is an important factor that contributes to the understanding about taxation especially regarding the laws and regulations of taxation (Eriksen and Fallan, 1996). Previous studies have produced evidence to show that tax knowledge has a very close relationship with taxpayers' ability to understand the laws and regulations of taxation, and their ability to comply (Singh and Bhupalan, 2001). A question that has been raised by previous researchers (for example Singh, 2003; Eriksen and Fallan, 1996; Harris, 1989) is whether enhancement in tax knowledge will increase tax compliance. Eriksen and Fallan (1996) and Lewis (1982) suggested that lack of fiscal knowledge correlates

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with negative attitudes towards taxation and therefore tax behaviour can be improved by better understanding in tax laws.

This result is in line with previous study by Lewis (1982) that low tax knowledge correlates with negatives attitude toward taxation: 'Tax attitudes can be improved through better tax knowledge' (Eriksen and Fallan 1986: 398) and thus this will in turn increase compliance and reduce inclination to evade taxes. Based on the foregoing, the following hypothesis was developed in relation to the hypothesis formulation;-

Ho –Tax knowledge is positively associated with attitude towards tax compliance

To test hypothesis herein above, the data collected was analysed using Pearson's correlation between awareness of tax obligations for Income tax, VAT and TOT and tax compliance behaviour. In order to ascertain if correlation was the most appropriate approach, the following assumptions were tested to check if they were met or not;-

1. Variables should be continous – interval or ratio level – ALL the independent and dependent variables were on a 5-point likert scale , hence this assumption is met
2. Need to have linear relationship between the variables – Linear relationship between the variables was observed from the normal P-P plots.
3. Significant outliers - from the normal P-P lots done, there were no significant outliers found.
4. Shapiro-Wilk test of normality was done to establish if the variables were normally distributed.

Since the variables met the above criteria, the correlations in Table 20 presented below were carried out.

Table 22: Pearsons Correlation between awareness of tax obligations versus tax compliance/non compliance behaviour

S/No.	Pearsons Correlation	Independent Variables	Dependent Variable
1.	Income tax vs. tax compliance	N31A.........N31M	N41A........N41N
2.	Income tax vs. tax non-compliance	N31A..........N31M	N42A........N42K
3.	VAT vs. tax compliance	N32A........N32H	N41A........N41N
4.	VAT vs. tax non-compliance	N32A........N32H	N42A........N42K

S/No.	Pearsons Correlation	Independent Variables	Dependent Variable
5.	TOT Vs. tax compliance	N33A........N33P	N41A........N41N
6.	TOT Vs. tax non-compliance	N33A........N33P	N42A........N42K

Note: The details of these variables have been attached in Appendix III of this report

4.13.2. Pearson's Correlation between awareness of Income tax obligations and tax compliance

Table 21 illustrates the Pearson correlation matrix for dependent and independent variables. We deduce from the table that there are significant numbers of both positive and negative correlations between tax compliance and income tax knowledge. The following are just examples of correlations observed;-

1.   (P<0.01)

N41B and N31A (r=-0.234), N41C and N31A (r= -.163), N41G and N31A (r=0.443), N41K and N31A (r=0.398), N41L and N31A (r=0.418), N41F and N31B (r=0.269), N41G and N31B (r=0.339), N41K and N31D (r=0.241) and N41K and N31H (r-0.313).

2.   (p<0.05)

N41A and N31A (r= -0.163), N41A and N31H (r= -0.149), N41B and N31B (r= - 0.173) , N41D and N31I (r=-0.180), N41G and N31K(r=0.184), N41I and N31J (r=0.145), N41L and N31L (r=0.174).

Based on the results presented in (1) and (2) above, we conclude that awareness of tax obligations is correlated both negatively and positively by compliance behaviour of taxpayers.

4.13.3. Pearson's Correlation between awareness of Income tax obligations and tax non-compliance

On the other hand, Table 22 illustrates the Pearson correlation matrix for dependent (tax non-compliance) and independent variables (awareness of income tax obligations). We deduce from the table that there are significant numbers of both positive and negative correlations between tax non-compliance and income tax knowledge. The following are just examples of correlations observed;-

1. (P<0.01)

N42A and N31A (r= -0.258), N42A and N31H (r= - 0.222), N42A and N31M (r= -0.247), N42C and N31A (r= - 0.439), N42C and N31B (r= -0.422), N42E and N31I (r=0.211), N42I and N31B (r=0.298), N42J and N31F (r=-0.233)

2. (p<0.05)

N42A and N31E (r= -0.184), N42B and N31G (r=-0.191), N42B and N31M (r=0.148), N42D and N31I (r=- 0.201), N42E and N31M (r=0.164), N42J and N31L (r=0.186)

Table 23: Pearson's Correlation matrix for dependent (tax compliance behaviour) and independent (Awareness of Income tax requirements) variables

	N31A	N31B	N31C	N31D	N31E	N31F	N31G	N31H	N31I	N31J	N31K	N31L	N31M
N41A	-.163*	-0.121	-0.065	-0.056	-0.068	-0.135	-.184*	-.149*	-0.074	0.026	-0.089	0.006	-0.003
N41B	-.234**	-.173*	-0.081	-0.003	-0.135	-0.016	-0.093	-.211**	-.149*	-0.085	0.04	0.008	-0.135
N41C	-.305**	-.244**	-.250**	-0.075	-.223**	-0.109	-0.129	-.186*	-.154*	-0.054	-0.072	-0.114	-.272**
N41D	-.212**	-.199*	-0.123	-.159*	-0.046	-0.005	-0.019	-.243**	-.180*	-0.063	-.248**	-0.121	-.175*
N41E	0.05	.155*	.159*	0.031	-0.001	0.082	-0.034	0.038	0.059	.220**	-0.02	0.055	-0.06
N41F	.256**	.269**	0.066	0.07	0.093	-0.028	-0.04	0.018	0.09	-0.096	-0.007	.178*	.184*
N41G	.334**	.339**	.180*	.206**	.161*	0.041	0.021	.152*	0.098	0.033	.184*	.175*	.181*
N41H	0.047	0.093	.224**	0.099	-0.062	-0.031	-0.003	0.1	-0.027	-0.054	0.104	0.04	0.007
N41I	-.249**	-.231**	0.017	-0.121	-0.093	0.073	0	-.277**	-.331**	.145*	-.184*	-.169*	-.358**
N41J	-.269**	-.289**	-0.073	-.206**	-0.091	.153*	0.131	-.217**	-0.12	.156*	-0.131	-.200*	-.352**
N41K	.398**	.386**	.223**	.241**	0.141	0.021	0.06	.313**	.234**	-0.044	.181*	.215**	.373**
N41L	.418**	.400**	0.093	.170*	0.115	-0.022	0.045	.298**	.380**	-.161*	0.092	.174*	.366**
N41M	0.081	0.013	-0.087	-0.024	0.013	0.066	-0.041	-0.064	0.119	-.201*	-0.038	-.173*	-.161*
N41N	-.169*	-.191*	0.062	-0.011	-0.125	0	0.008	-.204**	-.302**	.147*	-0.042	-0.086	-.344**

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Table 24: Pearson's Correlation matrix for dependent (tax non compliance behaviour) and independent (Awareness of Income tax requirements) variables

	N31A	N31B	N31C	N31D	N31E	N31F	N31G	N31H	N31I	N31J	N31K	N31L	N31M
N42A	-.258**	-.300**	-0.025	-0.091	-.184*	0.1	0.003	-.222**	-.226**	0.124	-0.07	-0.099	-.247**
N42B	0.097	0.105	-0.105	-0.048	-.155*	-.306**	-.191*	0.067	0	-.226**	0.012	0.043	.148*
N42C	-.439**	-.422**	-.257**	-.202**	-.162*	0.037	0.033	-.233**	-.310**	0.045	-0.136	-.285**	-.432**
N42D	-.214**	-.235**	-0.077	-0.12	-0.102	-0.07	0.061	-0.141	-.201*	0.08	0.08	-.173*	-.321**
N42E	0.142	0.107	-0.069	0.127	0.083	-0.12	-0.127	0.107	.211**	-.155*	-0.051	0.092	.164*
N42F	-.185*	-.271**	-0.124	-.310**	-0.074	-0.005	-0.059	-.220**	-.194*	0.073	-0.087	-.276**	-.248**
N42G	-.231**	-.297**	-0.088	-.179*	-.162*	-0.03	-0.042	-.152*	-.157*	0.068	-0.106	-.187*	-.208**
N42H	.197*	.210**	0.068	0.112	0.098	-0.067	-0.089	0.078	.227**	-0.047	0.07	0.087	.248**
N42I	.289**	.298**	0.092	0.121	0.01	-.212**	-0.123	0.111	0.067	-.155*	0.139	0.114	.218**
N42J	.247**	.240**	-0.036	0.111	0.019	-.233**	-0.1	0.124	0.046	-.320**	.186*	.186*	.235**
N42K	-0.063	-0.044	-0.065	-0.038	-0.143	-0.074	-.227**	-0.118	-0.129	-0.017	-0.046	0.006	-0.01

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

4.13.4. Pearson's Correlation between awareness of VAT obligations and tax compliance

Table 23 illustrates the Pearson correlation matrix for dependent and independent variables. We deduce from the table that there are significant numbers of both positive and negative correlations between tax compliance and VAT tax knowledge. The following are just examples of correlations observed;-

1. $(P<0.01)$

N41A and N32B (r = -0.206), N41B and N32H (r= -0.221), N41D and N32C (r=0.269), N41E and N32B (r=0.260), N41F and N32B (r=-0.245), N41I and N32B (r=0.368), N41J and N32B (r=0.515), N41L and N32B (r=-0.303), N41N and N32C(r=0.411).

2. $(p<0.05)$

N41A and N32B (r= - 0.157), N41C and N32C (r=0.176), N41E and N32D (r=0.193), N41F and N32C (r= - 0.159), N41G and N32H (r=0.199), N41H and N32G (r=-0.168), N41J and N32G (r=0.168), N41K and N32H (r=0.172), N41M and N32F (r=-0.146) and N41N and N32F (r=0.172).

Based on the results presented in (1) and (2) above, we conclude that awareness of VAT tax obligations is correlated both negatively and positively by compliance behaviour of taxpayers.

4.13.5. Pearson's Correlation between awareness of VAT obligations and tax non-compliance

On the other hand, Table 24 illustrates the Pearson correlation matrix for dependent (tax non-compliance) and independent variables (awareness of VAT obligations). We deduce from the table that there are significant numbers of both positive and negative correlations between tax non-compliance and VAT tax knowledge. The following are just examples of correlations observed;-

1. $(P<0.01)$

N42A and N32B (r=0.405), N42A and N32C(r=0.514), N42B and N32A (r=-0.287), N42C and N32C (r=0.375) , N42C and N32E (r=0.349), N42D and N32E (r=0.322), N42E and N32H (r=0.290), N42G and N32E (r=0.200),, N42H and N32E (r=-0.349) , N42I and N32C (r= -0.496), N42J and N32B (r= - 0.397).

2. (p<0.05)

N42A and N32G (r=0.145), N42C and N32H (r= - 0.166), N42D and N32B (r=0.188), N42D and N32C (r=0.198), N42E and N32D (r= -0.148), N42G and N32H (r= -0.16), N42H and N32G (r=-0.154), N42J and N32A (r= - 0.160).

Table 25: Pearson's Correlation matrix for dependent variables (tax compliance behaviour) and independent variables (awareness of VAT requirements)

	N32A	N32B	N32C	N32D	N32E	N32F	N32G	N32H
N41A	-.157*	-.206**	-0.059	0.057	-0.025	-0.051	0.052	0.073
N41B	-.163*	-0.079	-0.037	-0.104	0.045	0.057	-0.03	-.221**
N41C	0.024	0.079	.176*	0.016	0.033	-0.023	-0.037	-.165*
N41D	0.027	.206**	.269**	0.091	.218**	0.062	0.054	-.212**
N41E	.209**	.260**	.176*	.193*	0.144	0.031	0.103	0.133
N41F	-0.093	-.245**	-.159*	-0.093	-.187*	0.092	0.094	0.032
N41G	-0.007	-0.14	-.187*	-0.059	-.163*	-0.103	-0.048	.199*
N41H	0.096	0.101	-0.011	0.047	-0.072	0.008	-.168*	-0.003
N41I	0.01	.368**	.373**	0.106	.280**	.162*	0.001	-.195*
N41J	0.091	.515**	.494**	0.077	.511**	.196*	.168*	-.262**
N41K	-0.069	-.295**	-.419**	-0.057	-.252**	-0.097	-0.072	.172*
N41L	-0.028	-.303**	-.392**	-0.129	-.378**	-0.133	-0.096	.208**
N41M	-0.124	0	-0.084	-.157*	-0.047	-.146*	-0.053	-0.114
N41N	-0.013	.390**	.411**	0.094	.372**	.172*	0.003	-.290**

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Table 26: Pearson's Correlation matrix for dependent variables (tax non-compliance behaviour) and independent variables (awareness of VAT requirements)

	N32A	N32B	N32C	N32D	N32E	N32F	N32G	N32H
N42A	0.034	.405**	.514**	0.114	.439**	.155*	.145*	-.253**
N42B	-.287**	-.426**	-.427**	-.241**	-.277**	-.227**	0.001	0.003
N42C	0.053	.377**	.375**	0.009	.349**	0.087	0.066	-.166*
N42D	0.05	.188*	.198*	0.027	.322**	0.07	0.012	-0.111
N42E	-0.053	-.284**	-.333**	-.148*	-.258**	-.232**	-0.132	.290**

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	N32A	N32B	N32C	N32D	N32E	N32F	N32G	N32H
N42F	-0.1	0.119	.209**	0.126	.309**	0.084	-0.078	-.237**
N42G	-0.01	0.124	0.096	0.078	.200*	0.095	-0.07	-.160*
N42H	-0.075	-.368**	-.380**	-.152*	-.349**	-0.113	-0.045	.223**
N42I	-0.091	-.394**	-.496**	-.154*	-.385**	-.230**	-0.105	0.134
N42J	-.160*	-.397**	-.482**	-.249**	-.389**	-.316**	-.155*	0.039
N42K	0.022	0.01	0.008	0.085	-0.139	-0.084	-0.088	0.057

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

4.13.6. Pearson's Correlation between awareness of TOT obligations and tax compliance

Table 25 illustrates the Pearson correlation matrix for dependent and independent variables. We deduce from the table that there are significant numbers of both positive and negative correlations between tax compliance and TOT tax knowledge. The following are just examples of correlations observed;-

1. ($P<0.01$)

N41B and N33E (r= -0.288), N41C and N33A (r= - 0.244), N41C and N33E (r= -0.263), N41D and N33H (r= - 0.235), N41E and N33O (r=0.277), N41E and N33O(r=0.241), N41F and N33H (r=0.248), N41G and N33E(r=0.242), N41I and N33A (r=-0.330), N41K and N33A (r=0.493), N41L and N33B (r=0.366),N41N and N33N(r=0.359).

2. ($p<0.05$)

N41D and N33E (r=-0.200), N41D and N33K (r=-0.179), N41D and N33N (r=0.182), N41D and N33O(r=0.186), , N41E and N33B(r=0.222), N41E and N33C (r=0.199), N41F and N33B (r=0.198), N41G and N33K (r=0.203), N41J and N33P (r=0.202), N41K and N33C (r=0.182), N41N and N33C (r= -0.196).

Based on the results presented in (1) and (2) above, we conclude that awareness of TOT tax obligations is correlated both negatively and positively by compliance behaviour of taxpayers.

4.13.7. Pearson's Correlation between awareness of TOT obligations and tax non-compliance

On the other hand, Table 26 illustrates the Pearson correlation matrix for dependent (tax non-compliance) and independent variables (awareness of TOT obligations). We deduce from the table that there are significant numbers of both positive and negative correlations between tax non-compliance and TOT tax knowledge. The following are just examples of correlations observed;-

1. $(P<0.01)$

N42A and N33A(r= - 0.396), N42A and N33E (r=-0.394), N42A and N33H (r=-0.389), N42Aand N33K (r=-0436), N42B and N33N (r=-0.270), N42Cand N33O (r=0.256), N42D and N33K(r=-0.312), N42E and N33B(r=0.241), N42E and N33E(r=0.223), N42H and N33E (r=0.382), N42H and N33H (r=0.390), N42I and N33E (r=0.375), N42J and N33K (r=0.345).

2. $(p<0.05)$

N42A and N33C (r=-0.213), N42B and N33H (r=0.219), N42C and N33M (r=-0.171), N42C and N33P (r=0.175), N42D and N33I (r= -0.210), N42E and N33I (r=0.177), N42E and N33K(r=0.214), N42F and N33F (r=-0.218), N42F and N33F (r=0.216), N42G and N33)(r=0.191), N42H and N33C(r=0.182), N42H and N33M(r=0.196), N42I and N33I (r=0.178), N42J and N33P(r=-0.203), N42K and N33H (r=-0.212).

Table 27: Pearson's Correlation matrix for dependent variables (tax compliance behaviour) and independent variables (awareness of TOT requirements)

	N33A	N33B	N33C	N33D	N33E	N33F	N33G	N33H	N33I	N33J	N33K	N33L	N33M	N33N	N33O	N33P
N41B	-0.143	-0.109	-0.047	-0.096	-.288**	0.138	0.076	-0.133	-0.135	0	-0.137	-0.034	-0.117	0.022	0.017	0.092
N41C	-.244**	-0.139	-0.064	-0.046	-.263**	-0.17	-0.13	-0.126	-0.058	0.645	-0.153	0.039	-0.019	0.087	-0.069	0.02
N41D	-.246**	-.293**	-0.15	-0.071	-.200*	-0.124	-0.125	-.235**	-0.06	0	-.179*	0.066	-0.094	.182*	.186*	0.095
N41E	0.083	.222*	.199*	0.103	0.108	0.049	0.062	-0.056	0.076	.a	-0.069	0.071	0.038	0.167	.277**	.241**
N41F	.179*	.198*	0.129	0.091	.179*	.283**	0.111	.248**	.176*	-0.5	.259**	0	.207*	-0.063	-0.061	-0.03
N41G	0.146	0.162	0.021	-0.083	.242**	0.168	0.028	0.165	0.061	0	.203*	-0.106	0.047	-.262**	-.172*	-0.142
N41H	0.147	0.064	0.043	-0.05	0.128	0.098	0.055	0.108	0.057	0	0.037	-0.053	0.107	-0.079	-0.077	-0.109
N41I	-.330**	-.300**	-0.149	-0.048	-.247**	-.235**	-0.107	-.333**	-.192*	-0.354	-.362**	0.03	-.189*	.276**	.242**	0.097
N41J	-.403**	-.383**	-0.099	0.069	-.467**	-.439**	-0.12	-.402**	-.269**	0	-.475**	0.122	-.249**	.418**	.363**	.202*
N41K	.493**	.380**	.182*	0.035	.391**	.356**	.254**	.377**	.235**	-0.395	.451**	-0.047	.279**	-0.15	-0.111	-0.069
N41L	.365**	.366**	0.158	-0.017	.385**	.355**	0.131	.395**	0.153	0.215	.412**	-0.116	.197*	-.362**	-.330**	-.234**
N41M	-0.082	-0.113	-0.02	-0.052	-.195*	-0.146	-0.034	0.039	-.209*	0	-0.038	-0.136	-0.123	-0.035	-0.138	-0.079
N41N	.421**	.451**	.196*	0.027	.432**	.376**	.247**	.489**	.315**	0	.409**	0.082	.285**	.359**	.283**	.206*

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Table 28: Pearson's Correlation matrix for dependent variable (tax non compliance behaviour) and independent variables (awareness of TOT requirements)

	N33A	N33B	N33C	N33D	N33E	N33F	N33G	N33H	N33I	N33J	N33K	N33L	N33M	N33N	N33O	N33P
N42A	-.396**	-.412**	-.213*	-0.018	-.394**	-.356**	-0.128	-.389**	-.258**	-0.645	-.426**	0.11	-.253**	.350**	.291**	0.16
N42B	0.087	0.032	-0.037	-0.054	0.029	0.069	0.07	.219*	0.022	-0.271	0.169	-0.044	0.053	-.270**	-.180*	-0.067
N42C	-.386**	-.356**	-0.145	0.011	-.402**	-.371**	-0.148	-.352**	-.240**	0.791	-.423**	0.089	-.171*	.416**	.256**	.175*
N42D	-.301**	-.317**	-.188*	0.048	-.331**	-.401**	.178*	-.283**	-.210*	.a	-.312**	-0.01	-.236**	0.145	0.018	-0.086
N42E	.303**	.241**	0.065	0.071	.223**	.301**	0.138	.283**	.177*	0	.214*	-0.05	0.098	-0.066	-0.062	0.058
N42F	-0.156	-.182*	-0.036	-0.057	-.192*	-.218*	-0.004	-.233**	-0.106	0	-0.156	0.147	-0.109	.216*	.352**	0.166
N42G	-.211*	-.276**	-0.068	-0.109	-0.164	-0.154	-0.117	-.237**	-0.123	.a	-.172*	0.102	-0.119	0.093	.191*	0.121
N42H	.336**	.362**	.182*	0.038	.382**	.316**	0.154	.390**	.279**	0	.347**	-0.005	.196*	-.275**	-0.16	-0.061
N42I	.354**	.409**	0.165	0.034	.375**	.306**	0.1	.356**	.178*	0.395	.308**	-0.136	0.169	-.392**	-.288**	-.224**
N42J	.280**	.301**	0.145	0.098	.293**	.307**	0.146	.404**	0.171	0.395	.345**	-0.058	0.161	-.297**	-.245**	-.203*
N42K	-0.107	-0.027	-0.084	-0.161	-0.023	-0.073	-.197*	-.212*	-0.091	0	-0.131	-0.134	-0.166	-0.153	0.042	-0.051

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

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

a. Cannot be computed because at least one of the variables is constant

4.13.8. Pearson's Correlation between Integrity and Ethics (dependent Variable) and key demographic factors (independent variables)

Table 29 illustrates the Pearson correlation matrix for dependent variables on Integrity and Ethics and independent variables (demographic factors including age, gender, position in the organization, marital status, audit, sector, attendance to tax awareness/seminar and whether audited before or not). We observe from the table that there are no significant correlations between ethics and integrity and gender, position in the organization, age, marital status, age of the business, sector or attendance to tax awareness/workshop. However, we observe that there is significant negative correlation between ethics and integrity and education level as bulleted herein below;-

- I would not feel guilty if I made a mis-declaration on my income tax return and education level (r= - 0.223)
- Since the supporting documents do not need to be sent to the KRA, I can manipulate the figure in the tax return and education level (r= - 0.204)
- I do not think it is ethically wrong if I excludes small amount of income when completing the tax return and education level (r= -0.211)

In addition, there was a significant correlation between I would not feel guilty if I made a mis-declaration on my income tax return and religion (r = - 0.189), implying that religion has a role to play in tax compliance.

The study further established that there is significant positive correlation between ethics and integrity and education level as enumerated herein below;-

- I would not feel guilty if I made a mis-declaration on my income tax return and audited before or not (r= 0.267)
- Since the supporting documents do not need to be sent to the KRA, I can manipulate the figure in the tax return and audited before or not (r= 0.210)
- I do not think it is ethically wrong if I excludes small amount of income when completing the tax return and audited before or not (r= 0.187)

This implies that more audits may lead to enhanced integrity and ethics hence positively imparting on compliance.

Table 29: Pearson's Correlation matrix for dependent variables (Integrity and Ethics) and Independent variables (key demographic factors)

	Gender	Position	Age	Marital Status	Education Level	Religion	Age of the business	Sector	Attendance to any ...	Audited before
I would not feel guilty if I made a mis-declaration on my income tax return	0.145	-0.076	0.035	0.004	-.223*	-.189*	-0.057	0.027	0.085	.267**
Since the supporting documents do not need to be sent to the KRA, I can manipulate the figure in the tax return	0.05	0.128	-0.06	-0.028	-.204*	-0.121	-0.153	-0.133	0.109	.210*
I do not think it is ethically wrong if I excludes small amount of income when completing the tax return.	0.158	0.09	-0.117	-0.111	-.211*	-0.116	-0.155	-0.154	0.158	.187*

4.14. Summary of 4.13 - awareness of tax obligations versus tax compliance/non compliance behaviour

The analysis above tend to suggest that tax knowledge (as per analysis done for income tax, VAT and TOT) has a significant impact on tax compliance and therefore consequently support the hypothesis that Tax knowledge is positively associated with attitude towards tax compliance behaviour.

4.15. Suggested areas to raise tax awareness and enhance compliance

The respondents interviewed suggested that in order to raise tax awareness, some of the initiatives that KRA should undertake include; educating every taxpayer on key tax obligations , providing fliers to taxpayers with information on taxation policies, hholding seminars and visiting taxpayers, use media for taxpayer education including adverts, bill boards, simplification of approaches of paying taxes, review of methods of delivery of tax education, targeting rural communities for tax education, inclusion of a component of why taxpayers should comply, undertaking training on online services including online filing, streamlining tax refund, quick resolution of complaints, government spending should be for the good of the society , use of SMS to educate taxpayers, use billboards to inform people on taxation issues.

Proposals given to enhance compliance included; provision of information on Government spending to encourage more compliance, reducing tax rates both for

Income tax, VAT and TOT, use of a friendlier approach to educate taxpayers, put up stringent measures for non compliance, communicating changes in tax laws , increasing personal relief to reduce tax burden, developing tax motivation mechanisms, creating more awareness on online payment, ensuring that tax returns are easy to compile and file, faster resolution of complaints, discouraging corruption from defaulters who would bribe KRA officials, faster processing of tax refunds, removing taxes on basic goods and commodities, ensuring tax points are accessible in rural areas, Continuity of the Social protection programme and increasing detection rate for tax defaulters. These details are espoused in Table 30.

Table 30: Key suggestions to enhance compliance among taxpayers

Action to raise awareness of tax obligations	Actions to enhance compliance	Additional information
1. Educating every taxpayer on key tax obligations	1. Reduce the taxation rates for VAT from 0 to 10	1. Government should address the issues of insecurity
2. Educate people on how to comply with tax obligations	2. KRA should use a friendlier approach to educate taxpayers	2. Tax rates are always reviewed upwards – need to review them downwards
3. Provide fliers to taxpayers with information on taxation policies	3. Stringent measures should be put in place to comply	
4. Hold seminars and visiting taxpayers	4. KRA should not tax small businesses	
5. Use media for taxpayer education e.g. Adverts	5. Reduce income tax rates	
6. Simplified approaches of paying taxes	6. Changes in tax laws should be communicated to taxpayers	
7. Education taxpayers on tax rates	7. Reduce the turnover tax rates on net annual sales	3. Price regulation for basic commodities
8. Regular visits by KRA officials to educate taxpayers	8. Increase personal relief to 2000 to reduce income tax burden	4. The online system has been helpful and advantageous
9. Methods of delivery of tax education should be reviewed	9. Ensure that double taxation of goods does not occur	
10. Rural communities should be targeted for tax education	10. Reduce TOT rate to 2% on annual net sales	5. Import taxes are deemed to be high
11. Tax education should include a component of why taxpayers should comply	11. Tax motivation mechanisms should also be devised	
12. Training on online services including online filing should be done	12. Create awareness on online payment	6. More taxation on alcoholic products
13. Streamline tax refund	13. Ensure that tax returns are easy to compile and file	7. Impose heavy fines and penalties to defaulters
14. KRA should quicken the complaint resolution	14. Resolve complaints	
	15. Corruption should be discouraged from defaulters who would bribe KRA officials	
	16. Quicken the process for tax refunds	
	17. High income earners should pay more taxes	8. KRA should come

15. Government spending should be for the good of the society	18. Remove taxes on basic goods and commodities	up with a mechanism to tax the black market
16. Use SMS to educate taxpayers	19. Ensure that tax points are accessible in rural areas	
17. Use billboards to inform people on taxation issues	20. Government to continue with the social protection programme	
18. Government to address corruption especially on the roads –increases cost of goods	21. Increase detection rate of defaulters	
19. Taxation should be part of primary and secondary schools syllabus	22. Provide information on Government spending to encourage more compliance	

5. CHAPTER FIVE: CONCLUSIONS & RECOMMENDATIONS

5.1. Conclusions

5.1.1. Attendance to KRA workshops/seminars

63.6 per cent of the taxpayers interviewed have attended a KRA seminar/workshop before in the last 3 years whereas significant proportions (36.4 per cent) have not attended any KRA organized training in the last three year. The proportion of TOT registered taxpayers who have not attended any KRA seminar in the last 3 years is 41.7 per cent and this is significantly high compared with the proportion of VAT registered taxpayers who have not attended any KRA training which stands at 31.7 per cent.

5.1.2. Tax returns

The proportion of VAT and Income tax registered respondents who engage the services of a tax agent to prepare their tax returns was computed as 60 per cent and 59 per cent respectively compared with only 41 per cent of TOT registered taxpayers whose tax returns are prepared by a tax agent. Furthermore, the proportion of respondents who indicated that their returns were prepared by an agent for 2011, 2012 and 2013 was 51.9 per cent, 51.5 per cent and 51.5 per cent respectively. The entity of the individuals who prepared tax returns for the taxpayers therefore remained the same during the period herein.

5.1.3. Tax Audits

38.8 per cent or 52 of the respondents interviewed had been audited by KRA before whilst 61.2 per cent or 82 of them have never been audited.

5.1.4. Tax Awareness

There was a significantly high number of respondents who indicated that they possess either 'little' or 'low' knowledge for the following income tax requirements;-

j) Any employee earning less than 11,135 monthly are not eligible for PAYE – 20.9 per cent

k) Tax free limit of monthly pension is Kshs. 15,000 – 29.3 per cent

l) PAYE applies to weekly wages and monthly salaries- 33.6 per cent

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m) PAYE applies to weekly wages and monthly salaries – 33.6 per cent

n) Leave pay is subject to PAYE – 39.1 per cent

o) PAYE also applies to bonuses commissions and director's fees – 50.7 per cent

p) House allowance is subject to PAYE deductions -38.8 per cent

q) Resident individual is entitled to insurance relief at a rate of 15% of premiums – 41 per cent

r) Payment by employer to KRA is the 9th day of the month following pay-roll month – 26.1 per cent

With regard to VAT, the study established that a significant number of respondents indicated that they had 'little' or 'low' knowledge about the following VAT requirements;-

f) A VAT taxpayer may defer payment of tax due to a date not later than the twentieth day of the month succeeding date of payment- 35.6 per cent

g) VAT amount that remain unpaid attracts an interest of 2% per month – 22.5 per cent

h) A credit note is valid for 6 months from the date of supply – 46.4 per cent

i) A taxpayer may apply for a VAT refund within 3months from the date the tax became due and payable – 37.6 per cent

j) Taxpayers who do not meet the threshold for VAT can voluntarily register – 29.4 per cent

The proportion of respondents who indicated that they are either 'not aware at all' or 'with little or moderate' knowledge about TOT was significantly high compared to similar cases for both VAT and Income tax including for the following cases;

- Tax head is applicable to any resident person whose annual turnover from business exceeds Kshs. 500,000 and does not exceed Kshs. 5 Million – 28 per cent

- TOT is charged at the rate 3% on gross sales – 38 per cent

- TOT is a final Tax – 59.7 per cent

- Expenditure or capital allowance is not granted against turnover tax – 63.2 per cent

- Unpaid tax attracts interest at a rate of 2% per month – 43.3 per cent

- Turnover tax is not applicable to limited companies, rental income, professional or management fees -66.4 per cent

- No personal relief is granted – 44.9 per cent
- Tax period means every 3 calendar months commencing 1st January of every year – 44.7 per cent
- The TOT taxpayer is required to submit a quarterly return – 71.6 per cent
- TOT return is on a prescribed form TOT 3 – 70.2 per cent
- A taxpayer has a right to object to any assessment issued by the Commissioner- 73.2 per cent
- A taxpayer may remit tax due on monthly basis and offset the tax paid in the tax return – 61.2 per cent.

5.1.5. Characteristics of respondents with high/low tax obligations awareness

Tests carried out suggest that tax knowledge is influenced by gender, age, marital status, education level, religion, age of the business, attendance to KRA tax seminar/workshop and taxpayers subjected/not subjected to audit. The following are the key findings.

i)   Gender – The awareness of tax obligations for VAT and Income tax is same for both males and females. However, awareness of tax obligations for TOT is different for males and females.

j)   Age – The awareness of tax obligations for VAT and Income tax is same across different age groups. However, awareness of TOT obligations is different across age groups with younger age posting a slightly lower awareness compared to those aged 50+ years.

k)   Marital status - The awareness of tax obligations for VAT and Income tax is same across respondents of different marital status. However, awareness of TOT obligations is different among the married and single respondents - with single respondents posting a slightly lower awareness compared to the married respondents.

l)   Education level – The awareness of tax obligations for Income tax, VAT and TOT is different between varying education levels of the respondents - lowly educated taxpayers have minimal awareness of tax requirements and vice versa.

m) Religion – The awareness of tax obligations for income tax, VAT and TOT is different for both Christians and Muslims – Muslims were found to be more

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knowledgeable with a couple of obligations compared with their Christian counterparts.

n) Age of the business -- The awareness of tax obligations for VAT and Income tax is same across all enterprises irrespective of the age of the establishment. However, awareness of TOT obligations is different between newly registered companies (up to 6 years or so) and older enterprises (7+ years old) – newly enterprises posted a slightly lower awareness compared to those which have been in operation for 7 years or more.

o) Attendance to KRA workshop/Seminar – The awareness of VAT and TOT tax obligations was found to be different between taxpayers who have attended KRA taxpayer education/seminar and those who have not – those who have attended KRA seminars/workshops posted a significantly higher awareness.

p) Taxpayers subjected/not subjected to Audit before – The analysis has established that respondents audited before possess a significantly higher knowledge about tax obligations for Income tax, VAT and TOT compared with those who have not been audited before.

5.1.6. Effect of awareness of tax obligations and tax compliance behaviour
The analysis above tend to suggest that tax knowledge (as per analysis done for income tax, VAT and TOT) has a significant impact on tax compliance and therefore consequently support the hypothesis that Tax knowledge is positively associated with attitude towards tax compliance behaviour.

5.2.   Key recommendations

5.2.1. Recommendations for Objective 1: To enumerate the level of tax knowledge among partnership businesses
- Further impact evaluation should be done for all taxpayer education services carried out by KRA. The impact will inform areas where improvement is required and hence devise new strategies for executing taxpayer education
- Enhancement of taxpayer education with extensive engagement of taxpayers situated in rural areas.

- Devise new modes of delivery for taxpayer education for different groups of taxpayers – taxpayers with little or no education should be at least be sensitized in the local language and worse off in Swahili.
- Employ new approaches of taxpayer education which utilizes new technology including mobile telephones – short messaging services, media –print, radio, television and Internet – Social media.
- Lobby for tax education to be incorporated in school curriculum for primary and secondary schools in Kenya.
- Regular visits to taxpayers by the tax authority to sensitize taxpayers on tax requirements.

5.2.2. Recommendations for Objective 2: To examine the relationship between tax obligations awareness and tax compliance behaviour

- Enhancement of capacity for tax investigations – this has been proven to be one approach that can improve compliance levels.
- Use of friendlier approach when dealing with taxpayers on tax payments.
- Simplification of methods of paying taxes and making returns – online payments and filing need to be robustly be communicated to taxpayers and technical assistance offered where appropriate.
- Prudence Government spending – Government should strike to prudently spend coffers money whilst making public expenditure data available to taxpayers.
- Quick processing of refunds – This will motivate taxpayers to comply with tax laws.
- Consultative forums should be held with taxpayers to involve them during review of existing tax laws – their contributions and concerns should be catered for in any new changes in tax laws.
-

5.2.3. Recommendations for Objective 3: To elicit the reasons for taxpayer non-compliance and reveal some of the motives of tax evaders

- Equal treatment of all taxpayers – e.g. similar offence should be equally penalized
- Addressing the issues of corruption.

- Same as 5.2.2 above

5.2.4. Recommendations for Objective 4: To recommend mitigating measures to address the compliance risk identified.
  - Enhancement of compliance treatments – including tax audits, compliance checks, taxpayer education,
  - Same as 5.2.2 above

5.3. Study Limitations

This study is limited in a number of ways. First, the tax knowledge questions and the scope of questions asked in the questionnaire were only limited to some selected areas of Income Tax, VAT and TOT. The study may therefore not be able to determine all levels of tax knowledge as stipulated in relevant Revenue Acts enforced by the Kenya Revenue Authority. This would have been extensively time consuming and costly

We also submit that use of a self-evaluation survey may have been less reliable, especially when asking respondents questions that touch on their compliance behaviour with the tax systems. It is important to note that the actual behaviour of the subjects may vary from the responses given. However, despite this constraint, past research suggest that this is the only most approach to taxpayers' compliance behaviour through face to face interviews.

Lastly, the types of approaches used in measuring tax knowledge and tax compliance (i.e. by using a survey instrument) might provide limited results, and different research designs (such as interviews or an experiment) could produce different results. However, regardless of these limitations and weaknesses, the findings of this study could provide a key reference point to other countries intending to implement Self Assessment in taxation.

5.4. Areas for future Research

The area of tax education related to tax knowledge and levels of compliance, particularly in a self assessment system, offers opportunities for additional research. Instead of using a survey, other methods of data collection (for example, interviews or

experiments) may provide different results. It is expected that two-way communication via an interview could produce other meaningful results; however, non-anonymous methods such as interviews can be problematic in revealing the truth, especially when questioning respondents regarding tax compliance matters, as failure to appropriately address the questions would harm or embarrass respondents.

Future research could be conducted via a longitudinal study in which a comparison of more years and might provide different results from this 'point in time' study. For example a study into how changes in levels of tax knowledge, taxpayers' financial situations and changes to tax laws and regulations potentially affect compliance decisions could be beneficial. Using data from the tax administration and comparing this with data from questionnaires could also be beneficial as a further data source for a compliance study of this kind, although the chances of accessing data from the tax authority are very slim.

Other determinants which were not tested in this study such as political affiliation, cultural influence and religiosity could also be explored in the future. This study was unable to include these variables because these variables require a series of questions in order to be accurately measured (i.e the level of religiosity), hence these factors were excluded from this questionnaire but could be included in future studies to examine their impact on the explanatory power of the models used.

Additional similar studies may be conducted for the entire tax heads administered in Kenya and for all the taxpayer segmentations – the results may differ from one segment to another.

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