

**INFLUENCE OF TAXPAYERS' CHARACTERISTICS ON UTILIZATION OF  
ELECTRONIC TAX REGISTERS AMONG PRIVATE FIRMS IN  
KAKAMEGA COUNTY, KENYA**

**BY**

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT  
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## ABSTRACT

Tax payers' characteristics are unique attributes associated with individual taxpayers and include: the size of the business, income level of the taxpayer, financial constraints facing the taxpayer and perception towards ETR. Taxation and tax compliance literature indicate that firm size, income levels, financial constraints and traders perceptions are important drivers of compliance. Previous studies focus on the comparative analysis of revenue loss and non-compliance in developing countries, they employ technology acceptance model (TAM). Given that the law makes it mandatory for businesses registered for VAT to issue tax invoices and/or cash sale receipts which must be ETR generated or supported by ETR receipts, the relationship between firm size and utilization of ETRs, the effect of income levels on utilization; influence of financial constraints and traders perceptions are not known. The purpose of this study therefore was to investigate the influence of traders' characteristics on utilization of ETRs by private firms in Kakamega County. The specific objectives of the study were to: establish the relationship between firm size and utilization of electronic tax registers, determine the effect of income levels of taxpayers on utilization of electronic tax registers, investigate the influence of financial constraints on utilization of electronic tax registers and analyze the influence of traders' perception on utilization of electronic tax registers among private firms in Kakamega County. The study was guided by the theory of reasoned action framework. The study employs correlational research design. The target population was 610 private firms in Kakamega County. A sample of 243 finance department employees from 243 private firms was selected using stratified random sampling technique. Primary data was collected using self administered questionnaires. A pilot test with 10 employees was used for reliability and validity testing. The test retest coefficient was obtained to establish reliability. A Cronbach's alpha of 0.7 was acceptable for reliability. Data was analyzed using descriptive statistics such as mean, standard deviation, percentages and frequencies and inferential statistics namely Pearson correlation analysis. The findings of the study were that the relationship between firm size and utilization of ETRs is positive and significant ( $r = 0.475$ ,  $p = 0.008$ ,  $n = 220$ ) implying that firm size influences utilization of ETRs positively; effect of income levels on the utilization of ETRs is positive and significant ( $r = 0.597$ ,  $p = 0.000$ ,  $n = 220$ ) meaning that income levels of tax payers influence utilization of ETRs positively; the influence of financial constraints on the utilization of ETRs is negative and significant ( $r = -0.728$ ,  $p = 0.003$ ,  $n = 220$ ) implying that financial constraints facing tax payers influence utilization of ETRs negatively and the influence of traders' perception on the utilization of ETRs is negative and significant ( $r = -0.555$ ,  $p = 0.003$ ,  $n = 220$ ) meaning that traders' perceptions influence utilization of ETRs negatively. Results will be presented in the form of tables, charts and graphs. The results may be useful to academicians, scholars and government for policy formulations.

## CHAPTER ONE

### INTRODUCTION

This chapter outlines the background to the study, statement of the problem, objectives of the study, research hypotheses, scope of the study, justification of the study and the conceptual framework.

#### **1.1 Background of the Study**

Tax payers' characteristics are unique attributes associated with individual taxpayers and include: the size of the business, income level of the taxpayer, financial constraints facing the taxpayer and perception towards ETRs (Maloney, 2004). The size of a firm is considered to be an important attribute of tax payers hence the need to introduce it as an important driver of use of electronic tax system. The firm's size is calculated as a natural log of total assets or in terms of gross sales turnover. Penrose (1959) argues that larger firms enjoy economies of scale and these can impact on profitability. According to Ferri and Jones (1979), larger firms may also be able to leverage their market power, thus having an impact on profitability. Titman and Wessels (1979) suggest that large size firms tend to be more diversified and hence cash flows are less-volatile.

Previous studies (Adams & Webley, 2001 and Elffers, 1991) show that business size is a key determinant of tax compliance. Some studies use descriptive research or exploratory research designs to study comparative analysis of the compliance of VAT and sales tax among different sales level businesses (Brumbaugh, 2005; Muriithi and Moyi, 2003) while others (Yong, 2002) employ technology acceptance model (TAM) as a theoretical framework to investigate the factors affecting the adoption of electronic tax filing system but do not focus on private firms in Kenya using correlational research design. On the contrary, others (Agha and Haughton, 2006; Duverne, 1990) study coordinate audits of income-tax and VAT using exploratory research design and comparative analysis of revenue losses and noncompliance in the economies of European countries namely UK and France as opposed to private firms in Kenya. Therefore, the firm size and utilization of ETRs among private firms in Kakamega County has not been assessed.

Another popular view of tax payers' characteristics focuses on the income levels of the tax payer in terms of the size of the business and the capabilities of the owner. This view sees ETR utilization not as the result of the behavior of the state, but as an essential part

of a lower income, less developed country, where opportunities for wage and salary employment are limited both by lack of labor demand and lack of qualifications in the labor force. As a result, many people try to make a living in self-employment or small scale operations, with little capital, skills or technology (Godfrey, 2011). Maloney (2004) nuances this view by noting that there are some upper income, skilled labor force participants who engage in lucrative self-employment activities by choice, such as professionals and skilled workers who want the independence and flexibility which comes with self-employment, and there are many very vulnerable, low skill individuals who engage in lower productivity self-employment activities on the margin of poverty.

Reviewed literature (Pissarides and Weber, 2009; Nkote *et al*, 2010) show that relationship between incomes and expenditure is important in any business. On the other hand, some studies have done comparative analysis of the revenue losses and noncompliance in developed world (Agha and Haughton, 2006) whereas others (Yong, 2002) employed TAM to investigate the adoption of electronic system. On the contrary, others (Duverne, 1990) study auditing and VAT compliance using exploratory research design in the economies of European countries. Therefore, the income levels of traders and utilization of ETRs among private firms in Kakamega County has not been studied.

Financial constraints on use of ETRs refer to the business capabilities and/or financial resources that may hinder use of ETRs. Albright (2004) defines financial resources as basically an accessory used to make something else for example capital. In practical accounting terms, according to Langnau (2004) fixed capital is fixed assets. He contends that fixed capital assets are used to make something which is then sold for revenue. This according to him is how to convert capital to cash; he adds that capital of a business is shown on the asset side of the Balance Sheet.

Prior studies (Muriithi and Moyi, 2003; Brumbaugh, 2005) dwelt on the role of perpetual tax reforms by the Kenya Revenue Authority in mitigating fiscal imbalances using the concepts of elasticity and buoyancy. Others (Adams & Webley, 2001) studied small business owners' attitudes on VAT compliance using descriptive research designs. On the contrary, (Yong, 2002) employ technology acceptance model (TAM) to investigate the factors affecting the adoption of electronic tax system. On the other hand (Elffers, 1991) study income tax evasion measurement using exploratory research design. Therefore, the

financial constraints and utilization of ETRs among private firms in Kakamega County has not been studied.

Traders' perception towards ETRs entails the perceived fairness of a tax system is important both to its acceptability and smooth functioning. According to De Mello (2008) tax can be seen as unfair in a number of ways: If those of similar incomes are taxed differently, he found out that how a person perceives his own role in influencing the perceived inequity is of central importance and he argues that a taxpayer may withdraw from the exchange relationship by evading taxes in order to offset or reduce the disparity. Gilligan and Grant (2005) assert that the perception of tax fairness is one of the most important variables that can influence tax compliance behavior. Public perception that the tax system is fair and equitable is important if that system relies for its success on significant degree of voluntary tax compliance, which of course the contemporary reality for many jurisdictions.

Empirical evidence (Yong, 2002; Agha and Haughton, 2006) indicate that traders' perceptions are important drivers of compliance. Whereas some studies (Nkote *et al*, 2010) employ exploratory research designs to study perceived fairness of a tax system in different countries in Europe (Nkote *et al*, 2010), others (Pissarides and Weber, 2009) employ technology acceptance model (TAM) to study factors influencing the perceived inequity in VAT systems. On the contrary, others (Duverne, 1990) explore revenue losses and noncompliance in the economies of European countries. Therefore, the traders' perceptions and utilization of ETRs among private firms in Kakamega County has not been investigated.

Electronic Tax Registers were first introduced to Kenya in 2004, through a Kenya Gazette Notice No. 47 issued in October 22, 2004. According to this notice, Electronic Tax Register (ETR) or printer is defined as any device approved by the government to record and issue fiscal data of goods and services (KRA 2004). Today, the law makes it mandatory for businesses registered for VAT to issue tax invoices and/or cash sale receipts which must be ETR generated or supported by ETR receipts. Kakamega County is the suitable area of this study on the basis that majority of the business firms utilize electronic tax registers for the purpose of reporting VAT to the Kenya revenue authority. Besides, during the introduction of ETR in 2006, most traders in main counties in Kenya,

including Kakamega resisted its adoption (Kathuri 2006). However, tax compliance studies in different towns in Kenya have not indicated any significant difference in taxpayer's attitudes (Lumumba *et al*, 2010).

## 1.2 Statement of the Problem

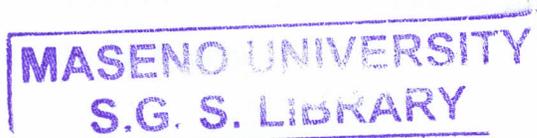
Taxation and tax compliance literature indicate that firm size, income levels, financial constraints and traders perceptions are important drivers of compliance. Previous studies focus on the comparative analysis of revenue loss and non-compliance in developing countries, they employ technology acceptance model (TAM). Given that the law makes it mandatory for businesses registered for VAT to issue tax invoices and/or cash sale receipts which must be ETR generated or supported by ETR receipts, the relationship between firm size and utilization of ETRs, the effect of income levels on utilization; influence of financial constraints and traders perceptions has not been assessed. Kakamega County is the suitable area of this study on the basis that majority of the business firms utilize electronic tax registers for the purpose of reporting VAT to the Kenya revenue authority. Besides, during the introduction of ETR in 2006, most traders in main counties in Kenya, including Kakamega resisted its adoption.

## 1.3. Objectives Study

The general objective of the study was to assess the influence of taxpayers' characteristics on utilization of electronic tax registers among private firms in Kakamega County, Kenya

### 1.3.1 Specific Objectives

Specific objectives were to:



- i. Establish the relationship between firm size and utilization of electronic tax registers among private firms in Kakamega County.
- ii. Determine the effect of income levels of taxpayers on utilization of electronic tax registers among private firms in Kakamega County.
- iii. Investigate the influence of financial constraints on utilization of electronic tax registers among private firms in Kakamega County.
- iv. Analyze the influence of traders' perception on utilization of electronic tax registers among private firms in Kakamega County.

## 1.4 Research Hypotheses

This study was guided by the following research hypotheses:

H<sub>01</sub> There is no relationship between firm size and utilization of electronic tax registers among private firms in Kakamega County.

H<sub>02</sub> Income levels of taxpayers have no effect on utilization of electronic tax registers among private firms in Kakamega County.

H<sub>03</sub> Financial constraints have no influence on utilization of electronic tax registers among private firms in Kakamega County.

H<sub>04</sub> Traders' perceptions have no influence on utilization of electronic tax registers among private firms in Kakamega County.



## 1.5 Scope of the study

The scope of the study is examined in terms of subject, geographical, variable and time scopes. In terms of subject scope, this study is limited to the broad business field of financial accounting and its subfields of taxation and computerized accounting systems. Geographical scope is the second aspect of scope in this study. The research was carried out in Kakamega County. Kakamega County was a suitable study area because majority of the business firms utilize electronic tax registers for the purpose of reporting tax returns to the Kenya Revenue Authority. Besides, during the introduction of electronic tax registers in 2006, most traders in main counties in Kenya, including Kakamega resisted its adoption (Kathuri, 2006). Kakamega County is one of the largest Counties in Kenya which is located in the Western Region of Kenya. As of 31<sup>st</sup> December 2015, the County had 610 private business firms registered by the County.

In terms of content scope, the research was based on two variables these are; tax payers characteristics and utilization of electronic tax registers. This study was conceived between September 2015 and January 2016.

## 1.6 Justification of the Study

The study provides useful information for decision making not only to the Kenya Revenue Authority to take the corrective measures to counter any weakness identified. This will help in promotion of the private firms' development in the country especially in Kakamega County where the study will be carried out, as well as ensuring adequate financial resources for the government. Business people will also benefit from the

findings to understand the tax payers characteristics associated with utilization of electronic tax registers. This will help them in addressing financial constraints, tax payers income generation and perception on taxation that influence the uptake of ETR machines. In addition, the study will provide information to the researchers interested in tax payers characteristics and utilization of electronic tax registers in the devolved units of government.

## 1.7 Conceptual Framework

### Independent Variable

#### Tax Payers' Characteristics

- Firm's size (Asset base)
- Business income levels (Sales turnover)
- Financial constraints (Business capabilities)
- Trader's perception (perceived fairness)

### Dependent Variable

#### ETR Utilization

- Extent of adoption and use of ETRs



**Figure 1.1: Tax Payers' Characteristics and ETR Utilization relationship**

Source: Adapted from Lumumba *et al.* (2010).

Figure 1.1 shows the relationship between tax payers' characteristics and ETR utilization. Tax payers' characteristics which is the independent variable has four dimensions namely, firms' size, business income levels, financial constraints in using ETRs and traders' perceptions. The dependent variable is the ETR utilization which is surrogated by extent of adoption and use of ETRs. The relationship is subject to three intervening variables namely: training, availability of both software and hardware and legislation.

## CHAPTER TWO

### LITERATURE REVIEW

This chapter covers the review of all relevant theories, concepts and empirical studies on the subject and the research knowledge gaps.

#### 2.1 Theoretical Review

##### 2.1.1. The Technology Acceptance Model

The technology acceptance model [TAM] states that technological innovation adoption is affected by the perceived usefulness and the perceived ease of use of the technology (Davis, 1989). The model has two fronts. One is the degree to which an individual believes that a particular system would enhance job performance within an organizational context. Secondly, the degree to which an individual believes that using a particular system would be free of effort. Thus, the model suggests that the innovation usage is indirectly affected by both perceived usefulness and perceived ease of use, which form the primary relevance for innovation adoption behaviors (Lee, Hsieh & Hsu, 2011).

##### 2.1.2 The Theory of Reasoned Action

The theory of reasoned action presents a model for predicting the intention to perform a behavior based on an individual's attitudinal and normative beliefs (Southey, 2011). Theory holds that a person's attitude toward a behavior is determined by their salient beliefs about consequences of performing the behavior and an evaluation of the outcome of that behavior (Talukder, Harris, & Mapunda, 2008). Behavioral beliefs in this context define the subjective probability that performing the target behavior will result in consequences while evaluation refers to an implicit evaluative response to the consequence (Talukder et al., 2008). Hence, with respect to adoption of innovation, the adoption decision is influenced by attitudes toward the use of the innovation and perception of what other people who are important to an individual think about the adoption (Chigona, 2008).

##### 2.1.3 Innovation Diffusion Theory

Innovation Diffusion Theory (IDT) was developed by Rogers (2003) who defined adoption as a decision of full use of an innovation as the best course of action available and rejection as a decision not to adopt an innovation. The theory defines diffusion as the process in which an innovation is communicated through certain channels over time



among the members of a social system. The innovation diffusion theory argues that “potential users make decisions to adopt or reject an innovation based on beliefs that they form about the innovation (Lee, Hsieh & Hsu, 2011). As expressed in this definition, innovation characteristics, communication channels, time, and social system are the four key components of the diffusion of innovations (Sahin, 2006).

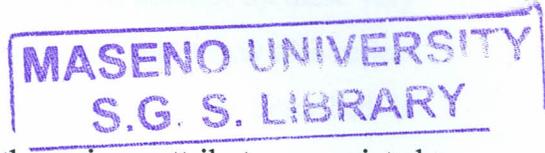
These three theories are interrelated in one way or the other. The constructs employed in TAM (perceived usefulness and perceived ease of use) can be perceived as fundamental subset of innovation characteristics which are captured in the innovation diffusion theory. According to Lee et al. (2011), the relative advantage construct in innovation diffusion theory is similar to the notion of the perceived usefulness in TAM, and the complexity construct in innovation diffusion theory captures the perceived ease of use in the technology acceptance model. Moreover traibility communicates the relative advantage of the innovation, a factor directly linked to perceived usefulness. Furthermore the theory of reasoned action [TRA] also forms a subset of innovation diffusion theory through the social system (e.g. individuals are more likely to perform an act if they perceive the existence of greater social pressure from salient referents to perform that act (Talukder et al., 2008)). Hence, the study combines the innovation diffusion theory (IDT), the technology acceptance model (TAM) , and the theory of reasoned action [TRA] to present an extended innovation diffusion model so as to give a more comprehensive approach for the study.

#### **2.1.4 Classical Deterrence Theory**

This framework assumes that taxpayers rationally perform a cost- benefit analysis of noncompliance taking into consideration the value of the marginal tax dollar and the risks of sanctions (Carroll, 2006). Since deterrence theory emphasizes cost-benefits that are based on expected outcomes of choices, it can be considered an outcome- processing theory (Carroll, 2006). Consequently, taxpayers make compliance maximize their utility.

Within this classical view of decision making, choices are considered to be motivated by self-interest (Hodgson, 2008). That is, individuals are thought to promote their own interests instead of the interests of others. Ethical values are seen as interfering with rational behavior and utility maximization (Etzion, 2006). Sociological research, however, has broadened the notion of utility to include concern for social duty as well as

self-interested goals. Thus, in classical deterrence theory, taxpayers choose a compliance level that maximizes utility (what is best for the taxpayer), and in sociological models, this choice also considers the social obligations and self-image of the taxpayers as well (Scholz, 2007).



### 2.1.5 The Concept of Tax Payers' Characteristics

Maloney (2004) defines tax payers' characteristics as the unique attributes associated with individual taxpayers and include: the size of the business, income level of the taxpayer, financial constraints facing the taxpayer and perception towards ETRs.

The size of a firm is considered to be an important attribute of tax payers hence the need to introduce it as an important independent variable. The firm's size is calculated as a natural log of total assets or in terms of gross sales turnover. Penrose (1959) argues that larger firms enjoy economies of scale and these can impact on profitability. According to Ferri and Jones (1979), larger firms may also be able to leverage their market power, thus having an impact on profitability. Titman and Wessels (1979) suggest that large size firms tend to be more diversified and hence cash flows are less-volatile. Size may be inversely related to probability of bankruptcy. Thus, a positive relationship between firm's performance and size is expected.

Another popular view of tax payers' characteristics focuses on the income levels of the tax payer in terms of the size of the business and the capabilities of the owner. This view sees ETR utilization not as the result of the behavior of the state, but as an essential part of a lower income, less developed country, where opportunities for wage and salary employment are limited both by lack of labor demand and lack of qualifications in the labor force. As a result, many people try to make a living in self-employment or small scale operations, with little capital, skills or technology (Godfrey, 2011). Maloney (2004) nuances this view by noting that there are some upper income, skilled labor force participants who engage in lucrative self-employment activities by choice, such as professionals and skilled workers who want the independence and flexibility which comes with self-employment, and there are many very vulnerable, low skill individuals who engage in lower productivity self-employment activities on the margin of poverty. In this view, the important point is not the relationship with the state, but the capabilities and preferences of the individual. However, the assumption of tax avoidance and use of ETRs

in the microenterprise sector tends to persist even as the more nuanced view of informality proposed by Maloney (2004) and others takes hold. This may be the result of very low business skills of the owners, who do not keep books and therefore cannot demonstrate their compliance with tax laws. It may also reflect an attempt by these very vulnerable businesses to avoid the corruption of petty bureaucrats. But it may also reflect a grey area between the institutions of the state and entrepreneurs, as described in Benjamin and Mbaye (2012). They note that many small traders and businessmen use self-employed fixers who, for a price, manage their relationship with the state to ensure a lower cost of doing business. This relationship benefits all parties, because it delivers more efficient transactions at a lower cost. But it also builds up the “pervasive culture of noncompliance” which Perry et al, (2007) found in Latin America.

Financial constraints on use of ETRs refer to the business capabilities and/or financial resources that may hinder use of ETRs. Albright (2004) defines financial resources as basically an accessory used to make something else for example capital. In practical accounting terms, according to Langnau (2004) fixed capital is fixed assets. He contends that fixed capital assets are used to make something which is then sold for revenue. This according to him is how to convert capital to cash; he adds that capital of a business is shown on the asset side of the Balance Sheet. In addition, Beal (2000) cites that supplementary to fixed capital, a business should have some working capital. According to him working capital is what is used in everyday operations. He says that if an entrepreneur takes current assets, and then subtract current liabilities, then working capital will be ascertained. He notes that the amount of working capital required should be enough to get through a few weeks of tough times. He gives a word of caution that working capital is what should be managed everyday because if this is not done, it will diminish and run out. According to Johansson (2004) running out of working capital is bad because that means a business is off balance, assets, including cash, will begin to pale against liabilities he further points out that it is not easy, however, to manage the working capital and requires an input of an expert.

Traders' perception towards ETRs entails the perceived fairness of a tax system is important both to its acceptability and smooth functioning. According to De Mello (2008) tax can be seen as unfair in a number of ways: If those of similar incomes are taxed differently, he found out that how a person perceives his own role in influencing the

positive consequences for state capacity and the extent to which governments are responsive and accountable to their citizens (Prichard, 2009).

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## 2.2 Empirical Literature

### 2.2.1 Firm Size and Utilization of Electronic Tax Registers

Using qualitative data, Adams & Webley (2001) in UK studied small business owners' attitudes on VAT compliance. The study found that among small businessmen and women observed that the more egoistic an individual is, the less likely he or she will be to comply with rules and laws when compliance or utilization of ETRs conflicts with his/her interests. However, the used descriptive research design, studied small business owners as opposed to private firms incorporating both medium and large enterprises, did not relate firm size to the utilization of ETRs in Kakamega County.

Another study by Elffers (1991) in Swiss on income tax evasion measurement found that believing the system to be inefficient correlates positively with propensity to evade tax. How business people think about the VAT money they collect may also influence their behavior towards it (the notion of mental accounting). Mental accounting is often described as a psychological mechanism whereby income is framed in respect of personal finance, that people have a number of mental accounts that operate independently of one another. What is interesting in the current context is whether businessmen and women psychologically separate monies owed to VAT into a separate mental account from that of business turnover. If they do not, then they may be more likely to evade VAT as a result of seeing it as their money. However, the study focused on tax evasion measurement as opposed to firm size and ETRs utilization.

A study by Brumbaugh (2005) in United States of America used comparative analysis of the compliance of VAT and sales tax among different sales level businesses using exploratory research design. The findings were that by the final stage of production, a cumulative rate of a VAT on an item is the same as that of a sales tax provided that neither contained special allowances and benefits. Therefore, their broad economic effect is the same. But since the two types of taxes differ in how they are collected, there are differences in compliance and ease of administration. A VAT would impose a higher compliance burden on the businesses in the retail sector. At the same time, a VAT avoids a tax administrative problem of distinguishing business use of the items from the personal

use. However, the study employed exploratory research design instead of correlational research design; was on comparative analysis between compliance of VAT and sales tax among different sales level businesses as opposed to firm size and ETRs utilization among private firms.

A study on tax reforms and revenue mobilization in Kenya by Muriithi and Moyi (2003) dwelt on the role of perpetual tax reforms by the Kenya Revenue Authority in mitigating fiscal imbalances. Their study employed the concepts of elasticity and buoyancy to determine whether tax reforms in Kenya made the yield of the individual taxes responsive to changes in national income. Their study revealed that, reforms had a positive and significant ( $p = 0.002$ ) impact on the overall tax structure. In addition, they found that the reforms failed to make VAT responsive to changes in income, even though VAT was predominant in the tax structure. However, the used concepts of elasticity and buoyancy, studied tax reforms and revenue mobilization as opposed to firm size and utilization of ETRs in Kakamega County.

Agha and Haughton (2006) investigated comparative analysis of the revenue losses and noncompliance in different countries in Europe. The findings of the study were that revenue losses vary from a low of 3 % (France, United Kingdom) to a high of 40 % (Italy). However, they explained that even the low figure represents a huge sum of money (three billion dollars for France) and a very high proportion of firms involved in some non-compliance. However, the study employed exploratory research design instead of correlational research design; was on comparative analysis between revenue losses and noncompliance in different countries in Europe as opposed to firm size and ETRs utilization among private firms.

Duverne (1990) analyzed coordinate audits of income –tax and VAT in France and found that 66% of French VAT taxpayers audited had understated the value of taxable sales (a quarter of them fraudulently) and 40% had overstated the value of taxable inputs. However, the study used descriptive statistics, fails to interrogate the link between firms size and utilization of ETRs among private firms in Kakamega County.

Yong (2002) carried out an empirical study on the factors affecting the adoption of electronic tax filing system in Taiwan using technology acceptance model (TAM) as a

theoretical framework. Their study introduced “perceived credibility” as a new factor that reflects user's intrinsic belief in electronic -tax filing systems, and examined the effect of technology-efficacy on the intention to use the electronic tax registers. The findings of the study were that the most prevalent factors affecting adoption of electronic tax filing were business size, financial constraints on use of electronic tax filing system, income levels and perception of traders towards the process. In addition, the study revealed that perceived ease of use, perceived usefulness and perceived credibility were important factors that influenced the acceptance of electronic tax filing systems. However, the study did not focus on Kakamega County.

Previous studies (Adams & Webley, 2001 and Elffers, 1991) show that business size is a key determinant of tax compliance. Some studies use descriptive research or exploratory research designs to study comparative analysis of the compliance of VAT and sales tax among different sales level businesses (Brumbaugh, 2005; Muriithi and Moyi, 2003) while others (Yong, 2002) employ technology acceptance model (TAM) as a theoretical framework to investigate the factors affecting the adoption of electronic tax filing system but do not focus on private firms in Kenya using correlational research design. On the contrary, others (Agha and Haughton, 2006; Duverne, 1990) study coordinate audits of income-tax and VAT using exploratory research design and comparative analysis of revenue losses and noncompliance in the economies of European countries namely UK and France as opposed to private firms in Kenya. Therefore, the firm size and utilization of ETRs among private firms in Kakamega County has not been assessed.

### **2.2.2 Income Levels of Tax Payers' and Utilization Electronic Tax Registers**

Pissarides and Weber (2009) assessed the effects of the different scopes and trust and customer loyalty in UK but using survey method. They collected data from 1982 family expenditure survey. By assuming that employees report income and expenditures accurately when employees filed their income report, an estimate of expenditure function for the same households then gives the true relationship between incomes and expenditure. The study found that the final estimate of the unobserved economy was approximately 5.5% of GDP. Although the methods used are not perfect, they cannot be dismissed entirely. However, the study did not cover private firms in Kakamega County.

Nkote et al (2010) studied the effect of automation and customs tax administration in the case of Uganda. The findings showed inconsistency of the automation in improving efficiency in tax compliance. The result generally showed that automation predicted the cost of tax compliance and effectiveness of revenue collection though predicted clearance time negatively. The study concludes that the cost of tax compliance was increased with increasing automation and the time taken to clear tax declarations reduced with increased computerization of tax administration at Uganda Register Authority (URA). The implications were that Uganda Register Authority (URA) achieved the computerization of customs tax compliance at an increasing rate of costs due to incomplete automation of all the systems. On the contrary, the study did cover private firms in Kenya and used descriptive design as opposed to correlational design to study income levels and automation.

Yong (2002) carried out an empirical study on the factors affecting the adoption of electronic tax filing system in Taiwan using technology acceptance model (TAM) as a theoretical framework. The findings of the study were that the most dominant factor affecting adoption of electronic tax filing was income levels of traders. In addition, the study revealed that perceived ease of use, perceived usefulness and perceived credibility were important factors that influenced the acceptance of electronic tax filing systems. However, the study did not focus on Kakamega County.

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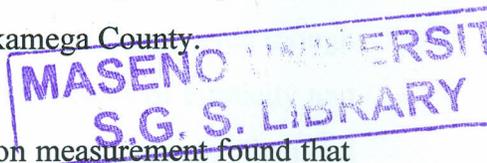
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Reviewed literature (Pissarides and Weber, 2009; Nkote *et al*, 2010) show that relationship between incomes and expenditure is important in any business. On the other hand, some studies have done comparative analysis of the revenue losses and noncompliance in developed world (Agha and Haughton, 2006) whereas others (Yong, 2002) employed TAM to investigate the adoption of electronic system. On the contrary, others (Duverne, 1990) study auditing and VAT compliance using exploratory research design in the economies of European countries. Therefore, the income levels of traders and utilization of ETRs among private firms in Kakamega County has not been studied.

### **2.2.3 Financial Constraints and Utilization of Electronic Tax Registers**

Using qualitative data, Adams & Webley (2001) in UK studied small business owners' attitudes on VAT compliance. The study found that among small businessmen and women observed that the more egoistic an individual is, the less likely he or she will be to comply with rules and laws when compliance or utilization of ETRs conflicts with his/her interests. However, the used descriptive research design, studied small business owners as opposed to private firms incorporating both medium and large enterprises, did not relate financial constraints to the utilization of ETRs in Kakamega County.

Another study by Elffers (1991) in Swiss on income tax evasion measurement found that believing the system to be inefficient correlates positively with propensity to evade tax. How business people think about the VAT money they collect may also influence their behavior towards it (the notion of mental accounting). Mental accounting is often described as a psychological mechanism whereby income is framed in respect of personal finance, that people have a number of mental accounts that operate independently of one another. What is interesting in the current context is whether businessmen and women psychologically separate monies owed to VAT into a separate mental account from that of business turnover. If they do not, then they may be more likely to evade VAT as a result of seeing it as "their money. However, the study focused on tax evasion measurement as opposed to financial constraints and ETRs utilization.



A study by Brumbaugh (2005) in United States of America used comparative analysis of the compliance of VAT and sales tax among different sales level businesses using exploratory research design. The findings were that by the final stage of production, a cumulative rate of a VAT on an item is the same as that of a sales tax provided that neither contained special allowances and benefits. Therefore, their broad economic effect is the same. But since the two types of taxes differ in how they are collected, there are differences in compliance and ease of administration. A VAT would impose a higher compliance burden on the businesses in the retail sector. At the same time, a VAT avoids a tax administrative problem of distinguishing business use of the items from the personal use. However, the study employed exploratory research design instead of correlational research design; was on comparative analysis between compliance of VAT and sales tax among different sales level businesses as opposed to financial constraints and ETRs utilization among private firms.

A study on tax reforms and revenue mobilization in Kenya by Muriithi and Moyi (2003) dwelt on the role of perpetual tax reforms by the Kenya Revenue Authority in mitigating fiscal imbalances. Their study employed the concepts of elasticity and buoyancy to determine whether tax reforms in Kenya made the yield of the individual taxes responsive to changes in national income. Their study revealed that, reforms had a positive and significant ( $p = 0.002$ ) impact on the overall tax structure. In addition, they found that the reforms failed to make VAT responsive to changes in income, even though VAT was predominant in the tax structure. However, the used concepts of elasticity and buoyancy, studied tax reforms and revenue mobilization as opposed to financial constraints and utilization of ETRs in Kakamega County.

Yong (2002) carried out an empirical study on the factors affecting the adoption of electronic tax filing system in Taiwan using technology acceptance model (TAM) as a theoretical framework. The findings of the study were that the most dominant factor affecting adoption of electronic tax filing was income levels of traders. In addition, the study revealed that perceived ease of use, perceived usefulness and perceived credibility were important factors that influenced the acceptance of electronic tax filing systems. However, the study did not focus on Kakamega County.

Prior studies (Muriithi and Moyi, 2003; Brumbaugh, 2005) dwelt on the role of perpetual tax reforms by the Kenya Revenue Authority in mitigating fiscal imbalances using the concepts of elasticity and buoyancy. On the other hand, some studies use exploratory research designs to study comparative analysis of the revenue losses and noncompliance in different countries in Europe (Adams & Webley, 2001). On the contrary, (Yong, 2002) employ technology acceptance model (TAM) to investigate the factors affecting the adoption of electronic tax filing system but fail focus on private firms in Kenya using correlational research design. On the contrary, others (Elffers (1991) study income tax evasion measurement using exploratory research design instead of private firms in Kenya. Therefore, the financial constraints and utilization of ETRs among private firms in Kakamega County has not been studied.

#### **2.2.4 Traders' Perception and Utilization of Electronic Tax Registers**

Pissarides and Weber (2009) assessed the effects of the different scopes and trust and customer loyalty in UK but using survey method. They collected data from 1982 family expenditure survey. By assuming that employees report income and expenditures accurately when employees filed their income report, an estimate of expenditure function for the same households then gives the true relationship between incomes and expenditure. The study found that the final estimate of the unobserved economy was approximately 5.5% of GDP. Although the methods used are not perfect, they cannot be dismissed entirely. However, the study did not cover private firms in Kakamega County:

Nkote *et al.*(2010) studied the effect of automation and customs tax administration in the case of Uganda. The findings showed inconsistency of the automation in improving efficiency in tax compliance. The result generally showed that automation predicted the cost of tax compliance and effectiveness of revenue collection though predicted clearance time negatively. The study concludes that the cost of tax compliance was increased with increasing automation and the time taken to clear tax declarations reduced with increased computerization of tax administration at Uganda Register Authority (URA). The implications were that Uganda Register Authority (URA) achieved the computerization of customs tax compliance at an increasing rate of costs due to incomplete automation of all the systems. On the contrary, the study did cover private firms in Kenya and used descriptive design as opposed to correlational design to study traders perceptions and automation.

Using qualitative data, Adams & Webley (2001) in UK studied small business owners' attitudes on VAT compliance. The study found that among small businessmen and women observed that the more egoistic an individual is, the less likely he or she will be to comply with rules and laws when compliance or utilization of ETRs conflicts with his/her interests. However, the used descriptive research design, studied small business owners as opposed to private firms incorporating both medium and large enterprises, did not relate traders perceptions to the utilization of ETRs in Kakamega County.

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Agha and Haughton (2006) investigated comparative analysis of the revenue losses and noncompliance in different countries in Europe. The findings of the study were that revenue losses vary from a low of 3% (France, United Kingdom) to a high of 40 % (Italy). However, they explained that even the low figure represents a huge sum of money (three billion dollars for France) and a very high proportion of firms involved in some non-compliance. However, the study employed exploratory research design instead of correlational research design; was on comparative analysis between revenue losses and noncompliance in different countries in Europe , did not cover traders perceptions and ETRs utilization among private firms.

Duverne (1990) analyzed coordinate audits of income –tax and VAT in France and found that 66% of French VAT taxpayers audited had understated the value of taxable sales (a quarter of them fraudulently) and 40% had overstated the value of taxable inputs. However, the study used descriptive statistics, fails to interrogate the link between traders perceptions and utilization of ETRs among private firms in Kakamega County.

Yong (2002) carried out an empirical study on the factors affecting the adoption of electronic tax filing system in Taiwan using technology acceptance model (TAM) as a theoretical framework. Their study introduced “perceived credibility” as a new factor that reflects user's intrinsic belief in electronic -tax filing systems, and examined the effect of technology-efficacy on the intention to use the electronic tax registers. The findings of the study were that the most prevalent factors affecting adoption of electronic tax filing were business size, financial constraints on use of electronic tax filing system, income levels

and perception of traders towards the process. In addition, the study revealed that perceived ease of use, perceived usefulness and perceived credibility were important factors that influenced the acceptance of electronic tax filing systems. However, the study did not focus on Kakamega County.

Empirical evidence (Yong, 2002; Agha and Haughton, 2006) indicate that traders' perceptions are important drivers of compliance. Whereas some studies (Nkote *et al*, 2010) employ exploratory research designs to study perceived fairness of a tax system in different countries in Europe (Nkote *et al*, 2010), others (Pissarides and Weber, 2009) employ technology acceptance model (TAM) to study factors influencing the perceived inequity in VAT systems. On the contrary, others (Duverne, 1990) explore revenue losses and noncompliance in the economies of European countries. Therefore, the traders' perceptions and utilization of ETRs among private firms in Kakamega County has not been investigated.

## CHAPTER THREE

### RESEARCH METHODOLOGY

This chapter presents on research design and methodology that will be used in carrying out the study. Further describes, target population, sampling techniques and sample size, research instruments, validity and reliability of research instruments, data collection and data analysis techniques.



#### **3.1 Research Design**

The study employed a correlational research design which involves relating two or more variables and allows predictions of outcomes based on causative relationships between the variables. According to Mugenda and Mugenda (2003), correlational research explores the relationship between variables, that is, the effect of one thing on another and more specifically, the effect of one variable on another. Mugenda and Mugenda (2003) contend that correlational research design has the advantage of being relatively cheap and it is used for the current study so as to assess the relationship between study variables.

#### **3.2 Study Area**

The study was conducted in Kakamega. Kakamega is the headquarter of Kakamega County. It is also western's commercial and industrial hub. It is located 0.28 latitude and 34.75 longitudes and it is situated at elevation 1,563 meters above sea level. The county lies in western Kenya. The study was based on large and medium scale businesses registered and operating with Kakamega County government. Kakamega County is chosen as a study area on the basis that majority of the business firm uses Electronic Tax Register (ETR) for the purpose of filing VAT to the Kenya Revenue Authority. The units of the analyses were the managers, proprietors and employees with information about VAT knowledge of the participating firms.

#### **3.3 Target Population**

The target population was 610 employees drawn from 610 private firms in Kakamega County. A sample of 243 finance department employees from 243 private firms was selected using stratified random sampling technique. According to Mugenda and Mugenda, (2011), a population is a well- defined set of people, services, elements and events, groups of things or households that are being investigated. The study was carried out in Kakamega County, which has a population of 610 private firms; the researcher

targeted all the 610 firms active in the County. This is inclusive of the medium and large scale private firms operating within Kakamega County, and registered for VAT purposes.

**Table 3.1 Target Population**

Category	No. of employees	Population
Medium traders	1- 6	400
Large scale traders	6-100	210
<b>Total</b>		<b>610</b>

**Source: Kakamega Revenue Collection Office, 2015**

Mugenda, (2008) observe that study population is the whole group that the researcher is interested in and wishes to make conclusions on. In the current study, the focus is on traders in the medium scale firms and large scale firms in Kakamega County.

### 3.4 Sample Procedure and Sample Size

The target population was 610 employees drawn from 610 private firms in Kakamega County. A sample of 243 finance department employees from 243 private firms was selected using stratified random sampling technique.

**Table 3.2: Sample size**

Traders	No.	Sample Size
Medium traders	400	143
Large traders	210	100
<b>TOTAL</b>	<b>610</b>	<b>243</b>

**Source: Kakamega Revenue Collection Office, 2015**

### 3.5 Data Collection Instrument

The study utilized primary data. The primary data was obtained from the relevant personnel in finance department. The questionnaires were self- administered so as to avoid misinterpretation of question by the respondents. The questionnaires contained both closed and open ended questions.

### **3.5.1 Data Type and Source**

The study used both primary and secondary data. Primary data was collected using semi-structured questionnaires administered to the personnel in the finance department. Secondary data was obtained using desk review.

### **3.5.2 Data Collection Procedure**

Primary data was collected through questionnaires. According to Dillman (2000), within business and management research, the greatest use of questionnaires is made in the survey strategy. This is because each respondent is asked to respond to the same set of questions and it provides an efficient way of collecting responses from a large sample prior to quantitative analysis.

### **3.5.3 Reliability and Validity Testing**

A pilot test with 10 employees was performed. Robson (2004) cites that validity refers to whether the test is measuring the variable that it is expected to be measuring. Two types of validity are important in the questionnaires that will be used. These are content and face validity. Content validity assesses the level to which the test is about the variables under study. Face validity is a test regarding whether the questionnaire serves the purpose at hand. This is a common sense approach where the time taken, design and size of the questionnaires come to play. The supervisor was able to advice on face validity of the questionnaires. A small sample of 10 questionnaires was administered for a pilot test with 10 employees.

According to Coolican (2004) reliability is the ability of a test to have similar results from repeated administration. The test-retest technique was used. In this technique, the questionnaire was administered to the 10 respondents in the pilot study and another administration to the 10 respondents repeated. The results from the two administrations were compared through a Cronbach's alpha of 0.7 indicated that the items in the questionnaire were reliable.

**Table 3.3: Summary of Cronbach's Alpha Reliability Test Results**

Construct	No. of Items	Cronbach's Alpha
Traders characteristics	4	0.850

**Source: Field Data, 2016**

Traders' characteristics had alpha of 0.850, indicating strong internal consistency among measures of variable items.

### 3.6 Data Collection Procedure

The researcher used the drop and pick later method to administer and collect the filled questionnaires (Babbie, 2011). A date was agreed on with every respondent on the date that the filled questionnaire would be collected. To ensure that the response rate is good, respondents were reminded through phone calls.

### 3.7 Data Analysis

Data was analyzed using both descriptive statistics such as mean and standard deviation, and Pearson correlation analysis. Descriptive statistics were used to describe the phenomenon of the study. Subsequently, Pearson correlation analysis was performed to fulfill specific objective (i), (ii), (iii) and (iv).

#### 3.7.1 Model Specification

The following formula (Equation 3.1) was used to calculate Pearson r correlation.

$$\text{Correlation } (r) = \frac{[N\sum XY - (\sum X)(\sum Y)]}{\sqrt{([N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2])}} \quad (3.1)$$

Source: Adapted from Lumumba *et al.* (2010).

Where:

$r$  = Pearson r correlation coefficient.

$N$  = number of values in each data set.

$\sum xy$  = sum of the products of paired scores.

$\sum x$  = sum of x scores.

$\sum y$  = sum of y scores.

$\sum x^2$  = sum of squared x scores.

$\sum y^2$  = sum of squared y scores.



## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

The chapter presents the results and discussions of the statistical analysis undertaken on the study variables discussed in the foregoing chapters. The first part presents the analysis of demographic characteristics of the respondents and the rest is on the results based on the objectives of the study.

#### 4.1: Demographic Characteristics

The demographic and contextual characteristics considered were type of business, form of ownership, number of employees and sales turnover.

**Table 4.1: Type of business engaged in**

Business Type	Frequency	Percent	Valid Percent	Cumulative Percent
Wholesale	80	36.4	36.4	36.4
Retail	94	42.7	42.7	79.1
Hospitality	26	11.8	11.8	90.9
Service	20	9.1	9.1	100.0
<b>Total</b>	<b>220</b>	<b>100.0</b>	<b>100.0</b>	

Source: Field data, 2016

Table 4.1 shows the type of businesses traders engaged in. The results indicate that majority (42.7%) of the respondents are in retail business; with 36.4 % of the respondents' in wholesale business while 11.8% are in hospitality business. Only 9.1 % of the respondents are in service businesses. This implies that private firms in Kakamega County are dominated by retail businesses.

**Table 4.2: Form of ownership**

Form of ownership	Frequency	Percent	Valid Percent	Cumulative Percent
Sole proprietorship	87	39.5	39.5	39.5
Partnership	108	49.1	49.1	88.6
Private company	25	11.4	11.4	100.0
<b>Total</b>	<b>220</b>	<b>100.0</b>	<b>100.0</b>	

Source: Field data, 2016

Table 4.2 indicates the analysis of form of business respondents engaged in. The findings indicate that majority (49.1%) of respondents are in partnership form of business while only 11.4% are registered as private companies. This means that the most private firms in Kakamega County are registered as partnerships.

**Table 4.3: Number of employees in the firm**

Number of employees	Frequency	Percent	Valid Percent	Cumulative Percent
Below 6	83	37.7	37.7	37.7
Between 6-30	100	45.5	45.5	83.2
Over 30	37	16.8	16.8	100.0
<b>Total</b>	<b>220</b>	<b>100.0</b>	<b>100.0</b>	

Source: Field data, 2016

Table 4.3 shows the number of employees in private firms in the sample. The results indicate that majority (45.5%) of private firms had employed employees in the range of between 6 and 30, while 37.7% had employed below 6 employees. Only 16.8% had a workforce of more than 30 employees. This means that Kakamega county is dominated by medium enterprises.

**Table 4.4: Business sales turnover**

Business turnover	Frequency	Percent	Valid Percent	Cumulative Percent
Below Kshs 5 million	37	16.8	16.8	16.8
Between Kshs 5-25 million	54	24.5	24.5	41.4
Between 26-50 million	69	31.4	31.4	72.7
Between 51-75 million	30	13.6	13.6	86.4
Above 75 million	30	13.6	13.6	100.0
<b>Total</b>	<b>220</b>	<b>100.0</b>	<b>100.0</b>	

Source: Field data, 2016

Table 4.4 shows the sales turnover of private firms in the sample. The results indicate that majority (31.4%) of private firms had sales turnover in the range of between Kshs 26-50 million, while 24.5% had a sales turnover between Kshs 5-25 million. Only 16.8% had a

sales turnover of below Kshs 5 million. This implies that private firms in Kakamega County are within the taxable bracket threshold of above Kshs 5 million.

#### 4.2 The Relationship between Firm Size and Utilization of Electronic Tax Registers

To assess the relationship between firm size and utilization of ETRs, Pearson's correlation analysis was performed and the results are summarized in the Table 4.5.

**Table 4.5: Bi-Variate Pearson's Correlation between Firm Size and Utilization of ETRs**

Variables		Utilization of ETRs	Firm size
Utilization of ETRs	Pearson Correlation	1	
	Sig. (2-tailed)		
Firm size	Pearson Correlation	.475**	1
	Sig. (2-tailed)	.008	

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

Source: Field Data, 2016

Table 4.5 indicates the relationship between firm size and utilization of ETRs is positive and significant ( $r = 0.475$ ,  $p = 0.008$ ,  $n = 220$ ). This implies that firm size influences utilization of ETRs positively. This finding is in tandem with that of Muriithi and Moyi (2003) who reported a positive relationship between firm size and tax return filling at 1 % level of significance ( $p = 0.002$ ). However, the finding is at variance with that of Adams and Webley (2001) who found a negative association between the size of the organization and ETR utilization in VAT returns.

#### 4.3 Effect of Income Levels of Taxpayers on Utilization of Electronic Tax Registers

In order to assess the effect of income levels on utilization of ETRs, Pearson's correlation analysis was performed and the results are summarized in the Table 4.6.

**Table 4.6: Bi-Variate Pearson’s Correlation between Income levels and Utilization of ETRs**

Variables		Utilization of ETRs	Income levels
Utilization of ETRs	Pearson Correlation	1	
	Sig. (2-tailed)		
Income levels	Pearson Correlation	.597**	1
	Sig. (2-tailed)	.000	

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

Source: Field Data, 2016

Table 4.6 shows the effect of income levels on the utilization of ETRs is positive and significant ( $r = 0.597$ ,  $p = 0.000$ ,  $n = 220$ ). This implies that income levels of tax payers influence utilization of ETRs positively. The findings concur with those of Yong (2002) who report a positive relationship while they contradict other studies (Nkote et al. 2010 and Agha and Haughton, 2006) who found a negative relationship between business income level and ETRs utilization.

#### 4.4 Influence of Financial Constraints On Utilization of Electronic Tax Registers

In order to assess the influence of financial constraints on utilization of ETRs, Pearson’s correlation analysis was performed and the results are summarized in the Table 4.7.

**Table 4.7: Bi-Variate Pearson’s Correlation between Financial Constraints and Utilization of ETRs**

Variables		Utilization of ETRs	Financial constraints
Utilization of ETRs	Pearson Correlation	1	
	Sig. (2-tailed)		
Financial constraints	Pearson Correlation	-.728**	1
	Sig. (2-tailed)	.003	

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

Source: Field Data, 2016

Table 4.7 indicates the influence of financial constraints on the utilization of ETRs is negative and significant ( $r = -0.728$ ,  $p = 0.003$ ,  $n = 220$ ). This implies that financial constraints facing tax payers influence utilization of ETRs negatively. The findings are in tandem with those of Elffers (1991) who found a negative association between ETRs utilization and financial constraints associated with implementation and use of ETRs. However, the findings are at variance with those of Brumbaugh (2005) who report a positive relationship between financial constraints and ETRs implementation and use among organizations.

**4.5 Influence of Traders’ Perception on Utilization of Electronic Tax Registers**

In order to analyze the effect of traders’ perceptions on utilization of ETRs, Pearson’s correlation analysis was performed and the results are summarized in the Table 4.8.

**Table 4.8: Bi-Variate Pearson’s Correlation between Traders’ Perceptions and Utilization of ETRs**

Variables		Utilization of ETRs	Traders’ Perceptions
Utilization of ETRs	Pearson Correlation	1	
	Sig. (2-tailed)		
Traders’ Perceptions	Pearson Correlation	-.555**	1
	Sig. (2-tailed)	.001	

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

Source: Field Data, 2016

As shown in the Table 4.8, the influence of traders’ perception on the utilization of ETRs is negative and significant ( $r = -0.555$ ,  $p = 0.003$ ,  $n = 220$ ). This implies that traders’ perceptions influence utilization of ETRs negatively. The findings concur with those of Agha and Haughton (2006) who report a negative relationship while they contradict the findings of Young (2002) who report a positive relationship between business owners’ perception and ETRs utilization.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

This chapter presents a summary of study findings, conclusions and recommendations based on the major findings.

#### **5.1 Summary of the Findings**

Based on objective one, the findings are that the relationship between firm size and utilization of ETRs is positive and significant that firm size influences utilization of ETRs positively. Objective two findings are that effect of income levels on the utilization of ETRs is positive and significant meaning that income levels of tax payers influence utilization of ETRs positively. Based on objective three, the findings are that the influence of financial constraints on the utilization of ETRs is negative and significant implying that financial constraints facing tax payers influence utilization of ETRs negatively. Lastly, based on objective four, the findings are that the influence of traders' perception on the utilization of ETRs is negative and significant meaning that traders' perceptions influence utilization of ETRs negatively.

#### **5.2 Conclusions of the Study**

The study conclusions are outlined as per the objectives as follows:

From the findings of objective one, it can be concluded that that firm size influences utilization of ETRs positively. Based on objective two findings, it can be concluded that the income levels of tax payers influence utilization of ETRs positively. From the findings of objective three, it can be concluded that financial constraints facing tax payers influence utilization of ETRs negatively. Lastly, based on the findings objective four, it can be concluded that the influence of traders' perception influence utilization of ETRs negatively.

#### **5.3 Recommendations**

Based on conclusion of objective one, private firms in Kakamega County should increase their firm sizes as this was found to enhance utilization of ETRs. From the conclusion of objective two, private firms in Kakamega County should continue increasing income levels. Similarly, from conclusion of objective three, private firms in Kakamega County should reduce financial constraints as these were found to undermine utilization of ETRs.

Lastly, from the conclusion of objective four, private firms in Kakamega County should reduce negative perceptions as these were found to undermine utilization of ETRs.

#### **5.4 Limitations of the Study**

The outcome of the study cannot be generalized to all private firms in Kenya since the study was limited to private firms in Kakamega County and did not incorporate all private firms in Kenya. The study adopted a correlational research design. The use of predetermined questions may have forced respondents to respond to questions even without properly understanding them. Some respondents did not provide answers to all questions asked and this could have influenced the final result.

#### **5.5 Suggestions for Further Research**

In order to improve the findings in this study, the researcher would like to suggest the following for further investigation. Future research efforts could dwell on large manufacturing firms and use more robust research designs such as time series, panel data and case studies. More research should be conducted on tax compliance status amongst Kenyan private firms over a period of time using secondary data. Empirical studies could also explore the relative importance of taxpayers' characteristics. Further research could be conducted based on the other remaining 46 counties in Kenya since such areas represent a variation in target markets and consequently the customers buying habits. Comparisons could be done on whether or not there is any variation or similarity. Lastly, An exclusive study on the taxation constraints facing private firms in Kakamega county should be carried out



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