# International Journal of Economics, Commerce and Management

United Kingdom http://ijecm.co.uk/ Vol. III, Issue 3, March 2015

ISSN 2348 0386

# FACTORS AFFECTING UTILIZATION OF ELECTRONIC TAX **REGISTERS (ETRs) IN SMALL & MEDIUM ENTREPRIES** IN KENYA: A CASE OF NAIROBI CBD

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## **Abstract**

Automation facilitates the clearance of legitimate trade, improves the efficiency of taxation controls and secures revenue collection. This study aimed at evaluating the factors affecting utilization of electronic tax registers among small and medium enterprises in Kenya. Stratified random sampling was used to select a 10% sample size from each of the strata amounting to 78 respondents. Data was analyzed using mean, percentage, standard deviation and correlation analysis. The study concluded that there is little training offered on the use of ETR machines and technicians are the major source of knowledge on the use of ETR machines. To boost compliance to tax laws and increase efficiency in filing of VAT returns, it is recommended that government provides proper training on the utilization of ETRs. The study further concluded that ETR machines are an additional cost to SMEs. To boost compliance, it is recommended that government provides SMEs with ETR machines at no charge. Further, government should carry out regular checks on ETRs so as to avoid manipulation by fraudulent taxpayers. In so doing, taxation will be considered fair to all and this will no doubt improve compliance levels.

Keywords: SMEs, Electronic Tax Registers (ETRs), Taxation, Kenya



#### INTRODUCTION

Value Added Tax, (VAT) on consumer expenditure was introduced in Kenya in 1990 in order to replace sales tax, which had been in operation since 1973. It was introduced as a measure to increase government revenue through expansion of tax base. VAT is levied on consumption of taxable goods and services supplied in Kenya or imported into Kenya. Registered persons acting as agents of government of Kenya collect VAT at designated points and then submit to the Kenya Revenue Authority (KRA) (Simiyu 2003). Previous empirical study conducted by Moyi and Ronge (2006), indicates that VAT contribution is estimated to an average of 5.4% of GDP between the year of its introduction (1990) and the year 2005. The average of total tax contribution to GDP for the same period was 19.8%. This clearly indicates that in Kenya, VAT contributes substantially to the growth of the economy. Another study conducted by Waris et al, (2009) reveals that despite the importance of VAT in the national budget, the period between the year 2000-2003 showed that VAT had the highest share of total tax (above 30%). However, VAT contribution trend declined to total taxes collected from the year 2003 onwards. This trend called for intervention reforms. Kenya revenue Authority (KRA) introduced several reforms in its revenue collection system including the introduction of Electronic Tax Registers.

Electronic tax filing, or e-filing, is a system for submitting tax documents to a revenue service electronically, often without the need to submit any paper documents. Electronic tax filing systems are an e-government application that is being utilized with increasing frequency all over the world. Such systems are particularly favorable for governments because they avoid many of the mistakes taxpayers make in manual filings, and they help to prevent tax evasion by data matching (Manly et al, 2005). The data houses developed using electronic tax filings can allow tax inspectors to analyze declarations more thoroughly, and enable policy makers to develop fairer and more effective (Kun et al, 2008).

The introduction of ETRs in Kenya was initially controversial and strongly resisted by business people. Traders had argued that ETRs are an extra burden to the taxpayer especially for those taxpayers with other systems to account for sales and VAT. Others argued that implementation costs were high and not recoverable for tax purposes and some ETRs malfunctioned and suppliers were not responsive. KRA responded with determination, but also with an aggressive information, education and communication program to promote the use of ETRs and a facilitation scheme under which taxpayers acquired ETRs, and then obtained refunds through the VAT system.

The success of ETR machines in Kenya was questioned during its initial stages of implementation. According to Kathuri (2006), the gadgets had failed in 21 countries including Tanzania. To make a more accurate estimate of the level of tax compliance, a comparison can

be made between the number of tax registered businesses and estimates of the level of business activities in a given country. A recent study in Rwanda estimates that nearly 70,000 micro and small-scale enterprises exist in the country; however, only around 1,000 small businesses are currently registered with the tax authority which indicates a tax compliance level of less than 2%. The compliance level in South Africa is 1.02% (population of 47 million, and 480,000 registered VAT taxpayers).

## **Electronic Tax Filing and VAT Administration in Kenya**

Benefits of automation include a reduction of fraud, remote access to information, improved collection statistics, and uniform application of tax legislation. The introduction of tax registers minimizes direct contacts between tax collection officers and traders hence reduction of corruption. Further benefits achieved through automation include improved reporting, control of file transfers, automatic reconciliation of tax returns declarations, and compliance testing of bank files. Paperless declarations and customs automation save time and make it easier to focus on inspecting high-risk consignments. The possibility of submitting tax returns declarations on-line has in some cases made it possible to reduce the associated fees; in other cases it has helped eliminate the obligatory contracting of Customs agents (Robert, 1997).

ETRs were first introduced to Kenya in 2004, through a gazette notice no. 47 issued in October 22, 2004. According to this notice, electronic tax register 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. The VAT act Cap 476 (Laws of Kenya), requires that once a tax payer is registered, should always display VAT certificate, issue ETR generated receipts, declare correct returns and submit returns on time. Failure to adhere to these requirements attracts heavy fines and penalties.

However, businesses with turnover of less than five million per annum are under no obligation to register for VAT and as such, are not legally compelled to use ETRs. For those businesses with turnover below the required VAT threshold, KRA has introduced a new tax called turnover tax (TOT) which is based on gross sales. This came into effect from 1<sup>st</sup> January 2008.

Despite the resistance experienced initially, many traders acknowledge today that ETRs are useful in sales control in their businesses. Therefore, both KRA and the business community have emerged as winners (KRA, 2005).

#### **Problem Statement**

Electronic tax registers were introduced to help KRA establish the amount of VAT payable without necessarily requiring the traders to provide records for crosschecking. There was concern that thousands of traders were undervaluing their sales in order to evade tax. The success of ETR machines in Kenya was questioned during its initial stages of implementation. According to Kathuri (2006), the gadgets had failed in 21 countries including Tanzania. There was also fear that accurate records could not be kept with the devices because there is no provision for return of goods and services.

In 2005, an IMF study on VAT refunds found out that a pre-condition for successful reform is a strong commitment on the part of government and key stakeholders. The premises and equipment necessary for automation may include new or rehabilitated offices, hardware, software, internal communication systems and connections to external networks, and they may also require the set-up of wireless networks and links. Furthermore, the introduction of ICT needs to be accompanied by extensive capacity building. In Kenyan context, there is no evidence of extensive training or any form of capacity building to small scale traders on use of ETRs. Could this be contributing to reluctance in use of ETRs?

Bird (1999) stresses that the willingness of the tax payers to comply with their obligations depend to a large extent upon the perception that the funds taken from them are put to some good use. Similarly the seriousness with which the government enforces the revenue laws will also have profound effect on public attitudes. The extent to which government over reaches in trying to tax income may affect overall compliance (Gordon, 1990). In Kenya, there are tax laws in place though it's unclear to what extent these laws contribute to utilization (or lack of it) of electronic tax registers

Another popular view of non compliance focuses on the size of the business and the capabilities of the owner. This view sees non compliance 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 salaried 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). With the resource constraints associated with small scale operations, acquisition of Electronic Tax Registers would no doubt be less of a priority. It is however not unclear, to what extent these financial constraints could be impacting on acquisition and utilization of ETRs.

This study thus aimed at establishing to what extent training, financial constraints, tax laws and perception towards taxation affect utilization of Electronic Tax Registers (ETRs) among small and medium enterprises in Kenya.

## Scope of the Study

The study targeted small and medium enterprises within Nairobi Central Business District. Senior accounts/finance department staff from selected enterprises were appropriate in providing data on VAT administration and utilization of the ETRs.

# **Research Objectives**

## General Objective

To establish the factors affecting small and medium enterprises on utilization of electronic tax registers

# Specific Objectives

- To determine effect of training on utilization of ETRs among SMEs in Kenya
- 2. To establish the effect of financial constraints on utilization of ETRs among SMEs in Kenya
- 3. To find out the effect of enforcement of tax laws on utilization of ETRs among SMEs in Kenya
- 4. To evaluate the effect of perception toward tax on utilization of ETRs among SMEs in Kenya

## Justification of the Study

Kenya Revenue Authority will be able to use the findings from this study to critically assess the influence of the system and take any corrective measures to counter any weaknesses identified. This will help in promotion of SMEs development in the country as well as ensuring adequate financial resources for the government.

Businesspeople will also use the findings to understand the financial benefits associated with electronic recording of transactions. This will help them in addressing record keeping challenges that influence the growth of SMEs in Kenya.

Other researchers will benefit from the findings in that the study will provide information to all future researchers interested in electronic tax registers and tax compliance.

## LITERATURE REVIEW

#### **Theoretical Review**

## Prospect Theory

A rapidly growing body of literature has developed that challenges the descriptive validity of the most basic assumptions of expected utility and other models of choice (Casey and Scholz, 1991). Kahneman and Tversky (1999) have formulated a more descriptive model of choice



under conditions of uncertainty, called "prospect theory." This theory diverges from the expected utility model by considering the contextual presentation or frame of a decision as a factor influencing the choice of decision makers. The frame of a decision includes its presentation, references points, alternatives, outcomes, and their probabilities of occurrence. Prospect theory recognizes that individuals have limited cognitive abilities and the theory envisions an editing step on the decision process that helps the decision maker simplify the process. In the editing step, the decision maker may simplify the decision by attending to only some factors, ignoring others, and encoding aspects into meaningful forms such as gains or losses, Most applications of prospect theory in the tax compliance research area have examined the violation of the expected utility tenet of description invariance called the reflection effect (gain/loss framing effect). That is the same outcome can be edited as either a gain or a loss depending on the reference point presented in the decision frame, and a different decision is likely depending on the frame adopted.

Prospect theory proposes that individuals will display a value (utility) function that is concave for gains and convex for losses, with the latter being steeper than the former. The shape of this value function suggests that individuals will be risk averse for gain frames and risk seeking for loss frames, where risk averse is defined as preferring a certain choice over a risky choice of equal or greater value (Kahneman and Tversky, 1999).

The framing effect described by prospect theory is by no means 'considered to be universal (Tversky and Kahneman, 1992). It is merely descriptive of how some individuals will behave some of the time. Other factors, such as social norms, ethics, and personal characteristics, may affect how a decision is edited and thus affect the ultimate decision made.

## Deterrence Theory

The primary theoretical framework In economics for the study of noncompliance has been 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, 1992). Since deterrence theory emphasizes cost-benefits that are based on expected outcomes of choices, it can be considered an outcome- processing theory (Carroll, 1992). Consequently, taxpayers make compliance maximize their utility.

Within this classical view of decision making, choices are considered to be motivated by self-interest (Hodgson, 1998). 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 (Etzioni, 1998). 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, 1995).

#### Ability to Pay Theory

The most popular and commonly accepted principle of equity or justice in taxation is that citizens of a country should pay taxes to the government in accordance with their ability to pay. It appears very reasonable and just that taxes should be levied on the basis of the taxable capacity of an individual. For instance, if the taxable capacity of a person A is greater than that of person B, the former should be asked to pay more taxes than the latter.

It seems that if the taxes are levied on this principle as stated above, then justice can be achieved. But our difficulties do not end here. The fact is that when we put this theory in practice, our difficulties actually begin. The trouble arises with the definition of ability to pay. The economists are not unanimous as to what should be the exact measure of a person's ability or faculty to pay. The main view points advanced in this connection are as follows:

Ownership of Property: Some economists are of the opinion that ownership of the property is a very good basis of measuring one's ability to pay. This idea is out rightly rejected on the ground that if a person earns a large income but does not spend on buying any property, he will then escape taxation. On the other hand, another person earning income buys property; he will be subjected to taxation. Is this not absurd and unjustifiable that a person, earning large income is exempted from taxes and another person with small income is taxed

Tax on the Basis of Expenditure: It is also asserted by some economists that the ability or faculty to pay tax should be judged by the expenditure which a person incurs. The greater the expenditure, the higher should be the tax and vice versa. The viewpoint is unsound and unfair in every respect. A person having a large family to support has to spend more than a person having a small family. If we make expenditure as the test of one's ability to pay, the former person who is already burdened with many dependents will have to' pay more taxes than the latter who has a small family. So this is unjustifiable.

Income as the Basics: Most of the economists are of the opinion that income should be the basis of measuring a man's ability to pay. It appears very just and fair that if the income of a person is greater than that of another, the former should be asked to pay more towards the support of the government than the latter. That is why in the modern tax system of the countries of the world, income has been accepted as the best test for measuring the ability to pay of a person.

### **Empirical Literature Review**

#### Training in use of ETRs

Information technology upgrading has been a part of virtually all reform programs, in hopes of improving data management and analysis, lowering compliance costs, reducing the scope for corruption and collusion and improving monitoring. While there is great potential, and there have been notable successes, many highly ambitious projects have ultimately disappointed due to large delays, poor integration with existing processes and weak implementation (Bird and Zolt, 2007).

Automation is not an end in itself, but a crucial component of taxation reforms, which aims at modernizing tax administrations and aligning the legal framework and procedures with international standards and best practices. Automation facilitates the clearance of legitimate trade, improves the efficiency of taxation controls and secures revenue collection. In addition, it helps address expectations of traders and transport operators regarding transparency, predictability and reliability, as well as the simplification of border-crossing and administrative procedures (Peha, 1999).

An IMF study, 2005 on VAT refunds found out that a pre-condition for successful reform is a strong commitment on the part of government and key stakeholders. The premises and equipment necessary for automation may include new or rehabilitated offices, hardware, software, internal communication systems and connections to external networks, and they may also require the set-up of wireless networks and links. Furthermore, the introduction of ICT needs to be accompanied by extensive capacity building.

Benefits of automation include a reduction of fraud, remote access to information, improved collection of statistics, and uniform application of tax legislation. The introduction of tax automation minimizes direct contacts between tax collection officers and traders or their agents, and hence leads to a reduction of corruption. Further benefits achieved through customs automation include improved reporting, control of file transfers, automatic reconciliation of tax returns declarations, and compliance testing of bank files. Paperless declarations and customs automation save time and make it easier to focus on inspecting high-risk consignments. The possibility of submitting tax returns declarations on-line has in some cases made it possible to reduce the associated fees; in other cases it has helped eliminate the obligatory contracting of Customs agents (Robert, 1997).

ICT can significantly reduce the number and the potential negative impact of physical inspections. ICT allow for pre-arrival clearance, risk analysis by tax authorities, and separation of release from clearance. With the help of ICT, it is further possible to better plan the timing and location of physical inspections, thus significantly reducing the waiting times for trucks and

containers. Finally, ICT solutions allow for better measurement of the length and number of physical inspections. Such measurement needs to cover the complete trade and transport operation and not be limited to tax clearance times only (Robert, 1997).

## Financial Constraints in Acquisition of ETRs

Another popular view of non compliance focuses on the size of the business and the capabilities of the owner. This view sees non compliance 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.

The assumption of tax avoidance in the microenterprise sector including the very smallest of businesses however 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.

#### Tax Laws

While the tax reform agenda has traditionally focused on maximizing revenue, economic efficiency and compliance, recent research has focused on the role of taxation as a central plank of a state building agenda. A recent OECD (2008) paper defines state building as 'an endogenous process to develop capacity, institutions and legitimacy of the state driven by state-society relationships. Consistent with this definition, recent research on taxation and

development finds that the need to raise taxation can lead to the strengthening of state-society relationships, with positive consequences for state capacity and the extent to which governments are responsive and accountable to their citizens (Prichard, 2009).

The commissioner of domestic taxes is mandated to assess, collect and account for taxes. The level of tax collection has risen over the recent years. It is not clear whether this increase can be ascribed to increased compliance among taxpayers or increased tax base or merely the improved economic activity. Kenya Revenue Authority (KRA) has since embarked on sensitization of Kenyans on tax compliance, organized awards for distinguished taxpayers and provision of tax amnesties for defaulters (KRA, 2004).

Non-compliance is the intentional failure by citizens to declare their taxable activities. It takes several forms such as concealing taxable activities, filling false returns and generally failing to adhere to the laid regulations concerning declaration and submission of returns. Noncompliance is closely linked to tax evasion except that it incorporates, apart from evading taxes, the aspect of complying with other income tax rules and regulations such as deadlines for submission of tax returns (Myles, 1995).

Information available indicates that non compliance among business firms is critical and therefore the greatest challenge towards realization of revenue collection targets by tax authorities. It is difficult to get the actual picture, but it is clear from few studies that have been published that non compliance is widespread and involves large revenue loses, though the extent varies considerably across countries (Webley et al (2002). In Kenya, the tax authority, KRA has over time been reporting that it has surpassed its collection targets, for instance in 2006/2007 fiscal year, domestic income tax and VAT were short of target by Sh.1.5 billion. The rule requiring businessmen to be ETR compliant was implemented during that period in order to check noncompliance practices.

Cowell (1992), identified five crucial likely determinants of VAT compliance: sanctions and punishments (deterrence), equity, personality, satisfaction with the tax authorities and mental accounting. Economic models clearly predict that higher penalties and audit probabilities should discourage non-compliance. Though both have some deterrence effect, higher audit probabilities probably have more impact than higher penalties (Andreoni et al, 1998). Surveys have indicated that self-reported non-compliers are less likely than compliers to believe that such acts would result in apprehension and punishment. De Mello (2008) observes that deterrence is not solely a matter of legal sanctions, a belief that one's reputation may suffer as a result of being caught evading tax is also a deterrent and may be relevant in a business context Government should improve the equity with which tax laws are enforced, such that all taxpayers are equally subject to existing tax laws. Bargaining over taxation is dependent on both the ability

and willingness of taxpayers to engage in collective political action, and the existence of minimal trust in government and the viability of any tax bargain. Where taxpayers are not treated equally under the law, do not trust one another and do not trust the government, constructive tax bargaining is unlikely. A focus on increasing equity in tax enforcement stands to address these concerns, while also increasing revenue collection, compliance, progressivity and political support for reform (Fjeldstad, 2004).

Deterrence is based on the concept that the risk of detection and punishment will improve compliance behavior. Under this approach citizens pay their taxes out of fear that the government will catch and penalize them (Lavoie, 2008). The aim of deterrence is therefore mainly to prevent tax evasion but the concept also includes the idea that the punishment of an evader will discourage future evasion.

Braithwaite (2009) has described deterrence as a double edged sword. Deterrence can strengthen the moral obligation to pay tax because it points out what is the right thing to do. But deterrence can also create resistance from the taxpayer by feelings of oppression. Thus, deterrence can have a positive or negative effect on compliance. The question therefore is not whether or not revenue bodies should use deterrence, but how it can be used most effectively.

# Traders Perception towards Electronic Tax Registers

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. A recent work by Adams (1996)shows that perceived inequity in the taxation system was found to be the most important variable predicting non-compliance in those running small businesses in Holland.

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.

Adams & Webley, (2001) who conducted a qualitative study on VAT 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 conflicts with his/ her interests. Dissatisfaction with the tax authorities has also been suggested by a number of investigators as motivators to avoid taxation. Elffers (1991) 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.

At a micro-level, limited survey evidence continues to highlight the fact that citizens would be more willing to pay taxes if they observed real benefits in return. In a survey of taxpayers in two localities in Tanzania over 80 per cent of taxpayers expressed the view that taxes were used 'only partly' or 'not at all' for public services, while 55–60 per cent believed that taxpayers avoided taxes as a result of poor services. As importantly, over 90 per cent of respondents in one district expressed a willingness to pay more taxes if public services were improved (Fjeldstad and Semboja, 2001). A more recent survey of urban property taxation in Tanzania echoes these findings. For example, 80 per cent of respondents accepted that property taxes were justified to fund local services, but half of that group argued that in practice the tax was not justified given the lack of services (Kayuza, 2006)

## **Conceptual Framework**

The literature on tax compliance points out, the size of income of tax payer, knowledge of tax due, frequency of audit, probability of detection by tax authorities and severity of punishment if caught as some of the important determinants of tax compliance model. Tax compliance can therefore be increased if control measures are put in place to detect non compliers and punitive measures instigated.

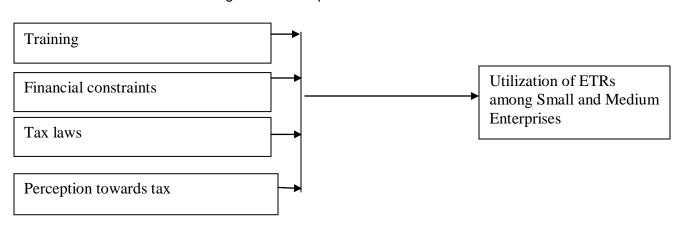


Figure 1: Conceptual Framework

#### RESEARCH METHODOLOGY

#### Research Design

This study adopted a survey research design. The research design was preferred for the study since it allows the researcher to collect a large amount of data from a sizeable population in a highly economical way. According to Saunders, et al (2007) this research strategy allows collection of data through questionnaires administered to a sample.

# **Study Population**

The target population of this study were chief accounting staff in small and medium business firms operating within NCBD that were registered with KRA. The study population comprised of a total of 782 chief accounting staff from 782 SMEs registered with Kenya Revenue Authority. NCBD was chosen because of its convenience to the researcher and it is also a lucrative business town. The SMEs were categorized as service providers, manufacturing enterprises and merchandisers. The target population was stratified as below:

**Table 1 Target Population** 

Nature of SMEs	Population
Service providers	263
Merchandising enterprises	410
Manufacturing enterprises	109
Total	782

## Sample Size

Stratified random sampling was adopted in this study to select a 10% sample size from each of the strata. This design ensures that all elements of the population are given an equal chance of being selected. In this way, no element of chance was left and highest accuracy was obtained (Kothari, 2002). The sample size was therefore distributed as; 26 service providers; 9 wholesalers and large scale retailers; and 32 small retailers and 11 small scale manufacturers. In all the selected firms, 1 accounting officer (or equivalent) was selected for the research.

Table 2 Sampling design

Nature of SME	Population	Multiplier	Sample
Service providers	263	0.1	26
Merchandising enterprises	410	0.1	41
Manufacturing enterprises	109	0.1	11
Total	782		78



## **Data Collection Techniques**

In this study, both primary data and secondary data were collected by the researcher. Primary data was collected by use of questionnaires. The questionnaire was structured; open ended and closed ended and was administered using drop and then pick later method. Secondary data was mainly collected from official documents and past records.

## **Data Analysis and Presentation**

Completed questionnaires were edited for completeness and consistency. The data was then coded and checked for any errors and omissions (Kaewsonth & Harding, 1992). The responses from open-ended questions were coded before analysis. Data analysis was done using percentages; mean, standard deviation and correlation analysis. For ease of analysis, procedures within Statistical Package for Social Sciences (SPSS) version 10 were used.

#### **EMPIRICAL RESULTS AND DISCUSSIONS**

## **Overview of Analyzed Data**

The data was collected using questionnaire method comprising of close ended and open ended questions. The questionnaires were self administered to the sampled respondents using drop and pick later method which was preferred for the exercise. Out of the 78 questionnaires that were given 70 were returned. This represents a response rate of 90 percent which is significant to give reliable findings for this study. According to McBurney (2001), above 70% response rate is acceptable for the study.

## **Demographic Information**

In order to capture the general information of the taxpayers/businesses owners in small business sector, issues such as age of the respondents, level of education, gender of the respondents, nature and age of the business were discussed.

#### Gender of the respondents

The findings show that 60% of the respondents were male while 40% of the respondents were female.

## Age of Respondents

The study sought to establish the age of the respondents under study. The study observed that majority of the respondents was below 50 years representing 78 percent of the sampled

population. Nineteen percent of respondents were between 51 and 65years. Only 3 percent of the respondents were above 65 years of age. 4.2.3: Level of Education

## **Education Level of the Respondents**

The results revealed that 46 % of the respondents possess secondary level of education, 35 percent possess tertiary college level of education, 13 percent had primary level of education and 6 percent University level.

## **Characteristics of Business Enterprises**

In order to capture the general information of the small and medium businesses in the central business district, issues such as nature of the business, age of the business and the length of ETR utilization was asked.

## Type of Business

The figure below shows that, majority (53%) of the businesses were merchandising enterprises, 32% were in service providers while 15% of the SMEs were manufacturing enterprises. This can be deduced to mean that most SMEs were required to charge VAT in the products and hence the need for ETR machine.

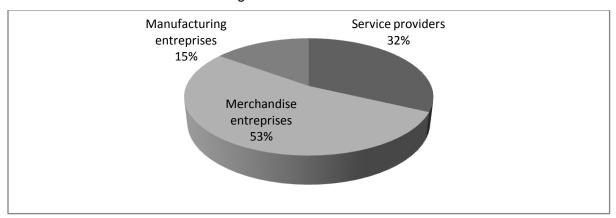


Figure 2: Nature of Business

## Age of Business

The findings shows that majority(62%) of the SMEs have been in existence for between 6 to 10 years, 30% have been in existence for below 5 years and 8% have been in existence for above 10 years.

# Duration of Usage of ETR Machines in the Business

Majority (69%) have used ETR machine for a period of between 1 and 3 years, 28% of the respondents had between 4 to 6 years of ETR usage, 3% of the respondents had between 7 to 10 years of ETR usage. This is an indication that the use of the ETR machine was recently adopted by the majority of the SMEs in Nairobi

## **User Training**

## Availability of User Training

Majority (59%) of the respondents said that the suppliers did not offer training on the use of the machine, 41% of the respondents said the suppliers offered training. The findings are illustrated in the figure 3.

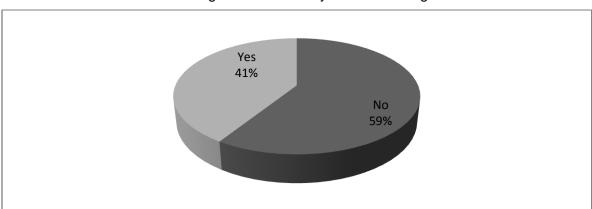


Figure 3: Availability of user training

#### Source of User Knowledge

Majority (43%) of the respondents cited technician as their source of knowledge on the use of ETR machines, 37% of the respondents cites friends, 11% of the respondents reported using the users manual as a source of knowledge, 9% of the respondents reported assistance from the KRA field representatives.

#### Effects of User Training

The findings shows that majority (47%) strongly agreed that lack of skills affect the use of ETR among small traders as represented by (4.501 mean score), 53% agreed with the statement that Constant changes in technology make the ETR machine obsolete hence hinder their usage (4.002 mean score), 37% of the respondents were not sure whether lack of knowledge to install the ETR machine hinder the implementation process as shown by 3.142 mean score.



Table 3 Effects of User Training

Statement	Mean	Standard dev	Percentage
Lack of skills affect the use of ETR among small traders	4.501	0.05	47
Constant changes in technology make the ETR machine obsolete	4.002	0.13	53
Lack of knowledge to install the ETR machine hinder the implementation	3.142	1.2	37

#### ETR Maintenance

The findings shows that majority (67%) of the respondents said that suppliers do not maintain/ repair ETR machines when they break down, 33% of the respondents reported that suppliers repair ETR machines when they break down.

Supplier maintain ETR machines

Supplier do not maintain ETR machines

0 10 20 30 40 50 60 70

Figure 4: ETR maintenance

## **Financial Constraint of SMEs and Utilization of ETR Machines**

Majority of the respondents agreed that there is additional cost in ETR compliance. Among the SMEs in Nairobi, only 2% of the respondents were of the view that there are no additional costs in ETR compliance.

#### Main Source of Additional Costs

60% of the respondents viewed cost related to installation of ETR machine as the major additional cost to value added tax compliance process, 25% of the respondents cited ETRs maintenance cost, 10% of the respondents cited cost of annual machine checkup as the major source of additional cost to VAT compliance process, 3% of the respondents cited the payment

for ETRs operators while 2% cited the purchasing of stationeries as the major source of additional cost. This is an indication that the initial cost of buying and installing ETR machine is the major cost associated with the VAT compliance among the small scale entrepreneurs in Nairobi.

#### Financial Benefits of ETR Machines

The findings show that majority (58%) of the respondents agreed that the adoption of ETR has increased the speed at which trade transactions are executed (4.001 mean score), 41% of the respondents said that ETR machines has reduced the average cost of trading per transaction (3.900 mean score), 30% of the respondents agreed that the ETR has enhanced information archiving, 29% of the respondents were not sure if the adoption ETR has improved transparency in the trading process among the SMEs (3.401 mean score), while 33% of the respondents disagreed that adoption of ETR machine has assisted in growing the client base (2.012 mean score).

Table 4 Financial benefits of ETR machines

	Mean	Std dev	Percentage
The ETR has reduced the average cost of trading per transaction	3.9	1.02	41
The ETR has increased the speed at which trade deals are executed	4.001	0.15	58
The ETR has improved transparency in the trading process	3.401	0.62	29
The ETR has enhanced information archiving	3.78	1.33	30
The ETR has assisted has in growing the client base	2.012	0.74	33

#### Tax laws

Majority (95%) of the respondents said they do file annual tax returns as stipulated by the law, 5% of the respondents said that they don't file tax returns as required by the law.

#### Tax Law on the Use of ETR Machines

Majority (43%) of the respondents strongly agreed that the government require strict adherence to the use of ETR machine on every transaction (4.681 mean score), 38% of the respondents said automation of taxation has increased the tax collecting capacity of the SMEs (4.202 mean score), 29% of the respondents were not sure whether the ETR has increased the number of local investment over the past 2 years (3.443 mean score), 52% of the respondents disagreed on statement that the government incurs the cost of installation of ETR machine (2.500 mean score), 65% of the respondents disagreed that the ETR machine is not supposed to be used on zero rated products (1.750 mean score).

# **User Perception Towards Taxation**

The researcher aimed at establishing the perception of taxpayer on whether it is important to tax SMEs in Kenya. The finding shows that majority (42.9%) of the respondents viewed it as not important, 35.7% of the respondents find it important while 21.4% viewed it as very important.

#### Effects of Taxation

31.4% of the respondents said that taxation lead to increases in the price of good, 27.1% of the respondents reported that they lead to the increase cost of doing business, 21.4% of the respondents reported that it lead to decrease in customer base as many prefer consuming goods with no tax such as unprocessed commodity, 20% of the respondents reported that taxation leads to decrease in the total sales volume.

## Effects of Using ETRs in VAT Processing in SMEs

From the table below, majority (49%) of the respondents agreed that ETR has resulted to easy and fast VAT Processing leading to less risk of prosecution (4.622 mean score), 36% agreed that ETRs have led to reduced cost in tax filing and submitting returns (4.523 mean score), 33% of the respondents agreed that preparation of returns using ETR is fast and efficient (4.447 mean score), according to 42% of the respondents ETR has increased efficiency in sales audit (4.201 mean score), 29% of respondents agreed that ETRs have led to timely preparation of report (4.005 mean score), 35% of the respondents neither agreed nor disagreed on whether ETRs have led to timely preparation of reports (3.000 mean score), majority (45%) of the respondents disagreed that ETR is a waste of funds and has not assisted the business in any way.

Table 5 Effects of Using ETRs in VAT processing in SMEs

	Mean	Std dev	%
ETR has increased efficiency in sales audit	4.201	0.187	42
ETR has resulted to Easy and fast VAT Processing leading to less risk of prosecution	4.622	0.82	49
ETRs have led to timely preparation of reports	3	1.255	35
ETRs have led to reduced cost in tax filing and submitting returns	4.523	0.894	36
Preparation of returns using ETR is fast and efficient	4.447	0.001	33
ETR is a waste of funds and has not assisted the business in any way.	2.01	0.222	45
The introduction of ETR has assisted in reducing tax avoidance	4.005	1.008	29

#### **Inferential Statistics**

One uses inferential statistics to try to infer from the sample data what the population might think or to make judgments of the probability that an observed difference between groups is a dependable one or one that might have happened by chance in this study. Thus researcher used inferential statistics to make inferences from the data to more general conditions. The study used factor analysis and correlation of variables using the Pearson correlation analysis to determine the relationship between the variables.

Table 6 Correlation between variables

		Utilization of ETRs	Training	Financial constraints	Taxation laws	Perception on tax
Utilization of ETRs	Pearson correlation	1				
	Sig.(2 tailed)	0				
Training	Pearson correlation	0.821	1			
	Sig.(2 tailed)	0.004				
Financial	Pearson correlation	0.625	0.425	1		
constraints	Sig.(2 tailed)	0.002	0.003			
Taxation laws	Pearson correlation	0.635	0.823	0.321	1	
	Sig.(2 tailed)	0	0.006	0.005	0.111	
Perception	Pearson correlation	0.875	0.331	0.306	0.752	1
on tax	Sig.(2 tailed)	0.05	0.0004	0.011	0.122	0.03

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

The above table gives the relationship between different sets of variables. The first variable training in relation to utilization of ETR machine, the finding shows a strong positive correlation between training and utilization of ETRs machines as shown by 0.821. There was a positive relationship between financial constraint and utilization of ETR machines as illustrated by 0.625, there is a positive relationship between tax laws enforcement and utilization of ETR machines among small has the correlation coefficient 0.635. Similarly perception of tax also had a strong positive correlation with utilization of ETR machine in small and medium enterprises.

#### SUMMARY OF THE FINDINGS

The study intended to find out the factors affecting utilization of ETRs among SMEs in Nairobi CBD. Majority (53%) of the businesses were merchandise enterprises, 32% were in service providers. With majority (62%) of them have been in existence for between 6 to 10 years, most of the SMEs have used ETR machine for a period of between a shorter period of between 1 and

3 years. On the user training, majority (59%) of the respondents said that the suppliers did not offer training on the use of the machine. Technician were cited as the major source of knowledge on the use of ETR machines, Guidance from friends and using the users manual were also source of knowledge. The study shows that Lack of skills affect the use of ETR among small traders as while changes in technology make the ETR machine obsolete hence hinder their usage. Majority (67%) of the respondents said that suppliers do not maintain repair ETR machines when they break down.

On financial implication of implementation of ETRs, majority of the respondents agreed that there is additional cost in ETR compliance among the SMEs. The cost related to installation of ETR machine was perceived as the major additional cost to value added tax compliance process, ETRs maintenance cost and cost of annual machine checkup were also additional cost to VAT compliance process. This is an indication that the initial cost of buying and installing ETR machine the major cost associated with the VAT compliance among the small scale entrepreneurs in Nairobi. The findings found that the adoption of ETR has increased the speed at which trade transactions are executed and reduction of the average cost of trading per transaction.

The findings show that majority (95%) of the respondents do file annual tax returns as stipulated by the law hence complying with the VAT laws. The study found that automation of taxation has increased the tax collecting capacity of the SMEs. Most of the respondents strongly agreed that the government require strict adherence to the use of ETR machine on every transaction. The researcher aimed at establishing the perception of taxpayer on whether it is important to tax SMEs in Kenya. The finding shows that most entrepreneurs viewed taxation as not important. The findings indicated that taxation lead to increases in the price of good, the increase cost of doing business, and decrease in customer base as many prefer consuming goods with no tax such as unprocessed commodity, majority (49%) of the respondents agreed that ETR has resulted to Easy and fast VAT Processing leading to less risk of prosecution, 36% agreed that ETRs have led to reduced cost in tax filing and submitting returns. ETR has increased efficiency in sales audit and that ETRs have led to timely preparation of report.

#### CONCLUSION

Based on the results from the data analysis the study came up with the following conclusions: On the user training, there is little training offered on the use of the ETR machine by the suppliers. Technicians were cited as the major source of knowledge on the use of ETR machines. According to majority of the respondents there is need for more training on using ETRs so as to ensure that they are more efficient and effective.

The study concludes that ETR machine are additional cost to the business. The SMEs has to incur installation cost as well as maintenance costs. The government should therefore provide the ETR Machines to taxpayers at no cost. Since taxation is for the government revenue collection therefore the government should be responsible for the initial cost of the ETR Machines.

From the study, it is clear that there is still a big number of tax payers who perceive VAT as not important. Compliance among those who are of the opinion that SMEs should not be taxed is likely to be lower. Government should thus sensitize SMEs on the importance of taxes and the benefits tax payers stand to achieve from these government collections.

In order to achieve maximum benefits and the fiscal policies, KRA should also strive to implement and enforce the requirements of CAP 476 in regard to operations of business and penalties for late filling of returns. Some respondents also recommended that the government should carry out regular checks on the ETRs so as to avoid manipulation by fraudulent taxpayers to cultivate a culture of patriotism to taxation.

#### **POLICY IMPLICATIONS**

The government should ensure proper training of entrepreneurs on the utilization of ETR machines as this will help in compliance with the VAT laws as well as efficiency in filing of returns.

The use of ETR has greatly influenced the efficiency in tax collection. The government should ensure that all small and medium sized enterprises within the VAT threshold use ETRs in their operations. This will ensure that all businesses in the category receive equal treatment from the government and this will no doubt boost compliance levels.

#### RECOMMENDATION FOR FURTHER STUDY

The study focused on utilization of ETRs among SMEs. Although it's clear that ETRs have enhanced revenue collection capacity of the government, this study was limited to small and medium sized enterprises within Nairobi. There is need for further research touching of larger business units.

Since compliance could be affected by the huge number of KRA officials in Nairobi, further research is recommended on effectiveness of legislation governing electronic tax systems and factors affecting utilization of ETRs focusing on towns with no KRA offices where there are limited number of the Authority's officials.

Further research is also recommended in the this area in order to find out the extent to which the tax authorities should pay attention to tax payer training with regard to VAT, compliance and tax audits. The burden of interpretation of tax laws and processing of returns should be done by the government. This will give tax payers incentives as regard to tax laws and therefore assessing individual tax liabilities and paying the correct amount of tax in time.

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