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FACTORS INFLUENCING IMPLEMENTATION AND UTILIZATION OF ELECTRONIC TAX REGISTERS BY SMALL AND MEDIUM ENTERPRISES IN NAKURU TOWN, KENYA

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Abstract

Electronic tax registers (ETRs) have been operational in Kenya since 2004. This study analyzed factors influencing effective implementation and utilization of electronic tax registers by SMEs in Nakuru town. Compliance cost, training, tax compliance and perceptions were considered. Explanatory design was adopted with a target population of 680 SMEs. Stratified random sampling sampled 197 participants who were administered with semi-structured questionnaires. Collected data was analyzed descriptively and inferentially. Findings revealed that online submission of tax returns eliminates costs of manual filing (mean=4.213), it's affordable to acquire and install ETRs (mean=3.233), ETR requires continuous systems improvement (mean=4.322), non-registered SMEs are heavily penalized (mean= 3.980) and lack of information affects VAT compliance (mean=4.256). There were significant correlations between compliance cost, training (r=0.763), tax compliance level (r=0.733), perceptions to tax compliance (r=0.756, 0.763, 0.733 and 0.751) and effective implementation and utilization of ETRs. Consequently, small numbers of transactions make ETRs cumbersome, online VAT *submission eliminates manual filing costs, training SMEs on ETR and tax compliance fosters public confidence. Thus, filing of VAT returns online should be made simple and efficient, there should be regular SME training on ETR systems, non-registered SMEs should be registered and there should be greater enforcement of tax laws.*

Keywords: Compliance; Training; Costs; Perceptions; Effective; Utilization; Implementation; Tax; Electronic; Register

INTRODUCTION

Electronic Tax Registers (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 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, he or she should always display PIN certificate, issue ETR generated receipts, declare correct returns and submit returns on time. Failure to adhere to these requirements attracts heavy fines and penalties.

According to Gebre (2006), tax revenue is one of the most important sources of government income. Thus, tax is compulsory payment to government without expectation of direct return or benefit to tax payers Taxation is a powerful instrument in the hands of the government for transferring purchasing power from individuals to government. It imposes a personal obligation on the tax payer. Tax refund claims can also be easily handled using ETR and as result reduces costs of businesses (IMF, 2005). The results of ETR implementation indicate that using ETRs shorten time taken for preparation of VAT returns as compared to previous time when preparation of VAT returns was done manually. Nisar (2013) argued that recent trends in public taxation stress the need of developing a system of tax assessment and collection that involves internet services. Several factors explain this, including the potential benefits of taxation for state building and independence from foreign aid. However, governments in developing countries face great challenges in collecting tax revenues, which result gaps between what they could collect and what they actually collect. Muita (2011) indicated that the embracing of emerging technologies and tax payment methods are more efficient in reducing wastage.

According to Cobham (2010), the electronic tax system has been around, globally, for the last 30 years. According to Friedman, Kaufmann and Zoido-Lobaton (2000), those SMEs and persons that are inclined to cheat on their sales tax are probably already cheating on their income tax and would be inclined to do so under any tax system. Similarly, the taxation of SMEs faces several major policy challenges. The first one concerns compliance costs of taxation. Existing empirical evidence clearly indicates that small and medium sized businesses are affected disproportionately by these costs: when scaled by sales or assets, the compliance costs of SMEs are higher than for large businesses. Given that small start-ups and research oriented SMEs are generally considered as important factors for economic growth, tax compliance cost may slow down the economy. At least two policy responses to the problem of compliance costs are conceivable. Governments could try to generally simplify tax administration for businesses.

The tax compliance literature has provided evidence suggesting that compliance is influenced by numerous factors (Brook, 2001). Scholars identified these factors as economic, social and psychological (Brook, 2001; Devos, 2008; Kirchler, 2007). According to Kirchler (2007) and Loo (2006), tax compliance determinants are classified in four categories based on an interdisciplinary perspective representing a wider perspective of tax compliance determinants: economic factors (tax rates, tax audits and perceptions of government spending); institutional factors (the role of the tax authority, simplicity of the tax returns and administration and probability of detection); social factors (ethics and attitude, perceptions of equity and fairness, political affiliation and changes on current government policy, referent groups); and individual factors (personal financial constraints, awareness of offences and of penalties). The role of the tax authority in minimizing the tax gap and increasing voluntary compliance is clearly very important.

Hasseldine and Li (1999) illustrated tax compliance is placing the government and the tax authority as the main party that need to be continuously efficient in administering the tax system in order to curtail tax evasion. Besides, Richardson (2008) suggested that the role of a government has a significant positive impact on determining attitudes toward tax and tax compliance levels by its citizens. Tax compliance determinants from a social perspective relates to taxpayers' willingness to comply with tax laws in response to other people's behavior and their social environment (Torgler, 2007). In the US, for instance, 40% of Americans, most of who are mostly in the informal sector, are not in compliance with income tax. The reasons for non-compliance are instructive. For instance, taxpayers lack the requisite knowledge of the tax law, taxpayers interpret the law differently from the Internal Revenue Service of the USA, taxpayers lack record keeping ability sufficient to satisfy the Internal Revenue Service and the taxpayers do their math wrong, or they rely on professional return preparers who get it wrong (Spiro, 2005). Decisions either to evade or not to evade taxes are heavily reliant on taxpayers' personal judgment (Mohani, 2001

The influence of tax knowledge and training on compliance behavior has been described in various past studies. The level of education or training received by taxpayers is an important factor that contributes to the understanding about taxation especially regarding the laws and regulations of taxation (Eriksen & Fallan, 2000). Previous studies have evidenced that tax knowledge has a very close relationship with taxpayers' ability to understand the laws and regulations of taxation and their ability to comply (Singh & Bhupalan, 2001). Previous literature supports the direct, positive relationship between educational level and taxpayer compliance. Chan, Troutman and O'Bryan (2000) postulated that education level is directly linked to a likelihood of compliance. In addition, compliance costs involved in taxation are major impediments to elicit compliance behavior of taxpayers. It is also believed by most tax policy researchers that compliance costs for tax payment are quite high especially for SMEs, which lack knowledge and skills of the tax laws and regulation (Shome, 2004).

Sometimes the administration of income tax creates problems for business taxpayers when it imposes burdensome reporting and record keeping requirements. This has led to increased costs of tax for those who try to comply with the tax law (Baurer, 2005). Likewise most governments in developing economies have not adequately taken taxpayer compliance costs into account when designing tax rules, yet such expenses fall on to the taxpayers in form of reduced work effort or saving (Bankman, 2005), time spent on tax compliance process and monetary expenditures on salaries, overheads and seeking assistance from experts (Munnich, 2004). Consequently, developing countries are still characterized by the low tax compliance levels, in the face of the numerous advocacies for voluntary compliance (Ayoki, 2008). Many governments as a result have adopted tax compliance administrative measures like penalties, rates and tax audits to ensure tax enforcement instead of compliance (Kayaga, 2007).

Aryeetey and Ahene (2004) posited that most large companies have their roots in Small and Medium Enterprises suggesting that the future large corporations are the Small and Medium Enterprises of today that that must be nurtured to ensure their growth. Thus, tax non-compliance by Small and Medium Enterprises are likely to be continued to future corporations if proper training and tax administration is are not adequately carried out. In countries where income redistribution is not satisfying, the higher income group tends to evade more (Mohani, 2001) because the high income earner might feel betrayed and unfairly treated. Loo (2006) found that high income earners in Malaysia are prone to evading tax while Torgler (2007) reported that lower income earners in Western Germany were less compliant.

At the same time, special responses targeted at SMEs are conceivable. For example, a widely observed measure to reduce the cost for small businesses are exemption thresholds under value added taxation (Weichenrieder, 2007). Nkote and Luwugge (2010) studied the effect of automation and customs tax administration in the case of Uganda. The researchers investigated the adoption of automation in URA in achieving efficiency and increased revenue collection. They established that there was inconsistency of the automation in improving efficiency in tax administration. The result generally showed that automation predicted the cost of tax administration and effectiveness of revenue collection though predicted clearance time negatively. This means that the cost of tax administration increased with increasing automation and the time taken to clear tax declarations reduced with increased computerization of tax administration at URA. Lumumba et al., (2010) studied the effectiveness of Electronic Tax Registers in Processing of Value Added Tax Returns in Kisii Town. Their finding showed that ETR has a significant positive impact on timely filling of the monthly VAT returns. Further the introduction of ETR has assisted in cutting costs that the business used to incur in processing VAT. Moreover, it was found that ETRs have enhanced the revenue collection resulting from stock sales and stock audits. The challenges faced by KRA as identified by the authors in this study were problems related to the cost and classification of the business which need to use ETRs to file tax returns. Tax non-compliance and low compliance levels are serious challenges facing income tax collection and tax revenue performance in Kenya as it does in some other developing countries.

Kenya Revenue Authority

The Kenya revenue Authority (KRA) was established by an Act of parliament, chapter 468 of the laws of Kenya, which became effective on 1st July 1995. The authority is charged with the responsibility of collecting revenue on behalf of the Government of Kenya. Since 2000, KRA has been undergoing several reforms all geared towards enhancing tax collection. KRA funds over 70% of the Kenya National Budget and hence the need to increase revenue through continuous improvement on tax collection processes. As part of the reforms, KRA embarked on a project in 2004 whose aim was to tighten grip on revenue sources by introducing the Electronic Tax Register (ETR) machines to replace the Electronic Cash Register (ECR). The ECR machines that were initially used by traders to account for taxes were not effective and were subject to falsification.

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). The high unemployment rate means that many people try to make a living in self-employment or small scale operations, with little capital, skills or technology to adopt ETR machines (Godfrey, 2011). Further, tax payers perceive inequity in the taxation system which leads to non-compliance levels in small businesses in Holland. The perception of tax fairness influences tax compliance behavior (Gilligan & Grant, 2005).

Tax Performance Effectiveness in Kenya

Kenya's tax system has performed better than average for Africa in the past three decades. In 1989/90, Kenya's tax revenue collection was 23.3% of GDP. Revenue collection peaked in 1995/96 at 30.4% of GDP, and thereafter, declined to 20.5% of GDP in 2002/03, before increasing to 22.0% in 2007/08 (IMF, 2008). Empirical analysis by Muriithi and Moyi (2003) suggest that tax reforms in Kenya under the Tax Modernization Program have led to improved productivity of direct taxes. In particular, administrative reforms aimed at eliminating avenues for tax evasion and corruption. However, Kenya's performance effectiveness indicators suggest that whilst the tax effort is high, there is potential to increase tax revenue collection as a percentage of GDP by reducing the tax gap.

Weichenrieder (2007) posits that the taxation of SMEs faces several major policy challenges that include compliance costs of taxation, revenue cost, tax evasion, incorporation and definition of SMEs. Chilipunde and Shakantu (2010) further argue that the SMEs management have inadequate training and business skills and have a high prevalence of unethical conduct. Forum on Tax Administration (2009) argued that it is critical that a very high degree of compliance is achieved for the proper reporting of income and payment of associated taxes by all taxpayers. Among many SMEs, this compliance is eroded by deliberate withholding of tax related information. This leads to difficulties in the realization of the incomes from turnover tax.

Kenya government has undertaken various revenue administration reforms aimed at enhancing revenue collection (Masinde & Makau, 2010). One of the measures that have been implemented in order to increase revenue collection in Kenya was the introduction of self-assessment systems (SAS) in 1992. The objectives of this system was to increase voluntary compliance, reduce tax authorities' burden of assessing tax returns and increase tax collection efficiency (reduce tax collection costs). However despite various administrative reforms, levels of tax compliance have remained quite low. A study conducted by KRA, KIPPRA and the Treasury, based on 1999/2000 data revealed that VAT payment compliance was as low as 55% while return lodgment compliance was 65% (Masinde & Makau, 2010). Tax noncompliance is a substantive universal phenomenon that transcends cultural and political boundaries and takes place in all societies and economic systems.

There are many studies that explain the behavior of tax compliance in a more realistic situation. They focus on the determinants of tax compliance, respectively on economic and non-economic factors (Nicoleta, 2011). Wasao (2014) described electronic tax system as an online platform whereby the taxpayer is able to access through internet all the services offered by a financial authority such as the registration for a personal identification number, filing of returns and application for compliance certificate, a perfect example of such system is the Electronic taxation system that was rolled out in 2013 by the Kenya Revenue Authority. According to Atika (2012), electronic tax system forms part of the revenue collection reforms by Kenya Revenue Authority whose main motive is enhancing tax collections and tax efficiency. Thus, tax revenues have been increasing rapidly due to the country's rapid economic development accelerated by the new systems.

The SMEs in Kenya are characterized by the ease of entry and exit, the small scale nature of activities, self-employment with a high proportion of family workers and apprentices, the little amount of capital and equipment, their labor intensive technology, the low level of skills, the low level of organization with little access to organized markets, the unregulated and competitive markets, the limited access to formal credit, the low levels of education and training and the limited access to services and amenities (Waweru, 2007). VAT also requires regular returns from a large number of firms. However, with proper record-keeping, one advantage of VAT is that it creates a clear invoice trail, making it much easier to detect and deter tax evasion. Similarly, the multistage structure of VAT induces firms to register voluntarily as taxpayers. The other challenge is that there are different rates of tax for various goods and services, which makes it difficult for average citizens to understand what is expected of them (Karingi et al., 2005).

Statement of the Problem

The adoption of Electronic Tax Registers (ETR) in Kenya through KRA has created a significant positive impact on timely filling of the VAT returns. However, use of ETR in processing tax returns has been made with mixed reactions, resistance and perceptions while KRA believes it has increased efficiency in operations and revenue collection. Recurrent maintenance cost, ETR handling and higher compliance costs have been reported as major problems SMEs face. There have been incidences of unallowable expenses due to lack of consistency and transparency. Though ETR was introduced to reduce the burden of cross checking records, some SMEs are yet to embrace the idea. Challenges on payment for ETRs, installation costs, maintenance cost and annual checkup cost have been cited. There have been inconsistencies of the automation in improving efficiency for SMEs. KRA has experienced inconsistency in business classification which has made measurement of taxation compliance costs and identifying costs difficulty. Further, some SMEs have questioned quality of service and training offered by ETR suppliers. Fixing ETR technical problems bears high maintenance cost for SMEs while at the same time, they are not sufficiently trained to handle technical issues. This has greatly influenced the cost of running the ETRs. This has been compounded by the fact that only the KRA officials are adequately conversant with ETR. Some shy off from acquiring ETR because they necessary operational skills. Some ETR suppliers also take time to respond regarding malfunctioned machines. Additionally, tax compliance levels still remain low and tax collections are below the set targets as noted by KRA. In Rwanda, an estimated 70,000 micro and small-scale enterprises exist; however, only about 1000 SMEs are registered with the tax authority; a tax compliance level of less than 2% while compliance level in South Africa is 1.02% translating to 480,000 registered VAT taxpayers out of a population of 47 million people. Some traders argue that ETRs are an extra burden; implementation costs are high and not recoverable for tax purposes. This creates varied perceptions on ETR adoption and tax obligations based on the use of tax funds and enforcement of tax and revenue laws. Though there are tax laws in place, it’s unclear to what extent these laws contribute to adoption and utilization (or lack of it) of ETRs by SMEs. The perception of tax fairness influences tax compliance behavior. An inefficient tax system correlates positively with propensity to evade tax by SMEs and other tax payers. SMEs compliance decisions are affected by many factors including the tax morale among taxpayers, tax knowledge and penalties. However, no study has been conducted on effective implementation of ETRs in Nakuru town.

General Objective

To study the factors influencing effective implementation and utilization of electronic tax registers by small and medium enterprises in Nakuru town.

Specific Objectives

i. To establish the influence of compliance costs on effective implementation and utilization of ETR machines by small and medium enterprises in Nakuru town.
ii. To assess the influence of training on effective implementation and utilization of ETR machines by small and medium enterprises in Nakuru town. .
iii. To analyze the influence of tax compliance level on effective implementation and utilization of ETR machines by small and medium enterprises in Nakuru town.
iv. To examine the influence of perception to tax compliance on effective implementation and utilization of ETR machines by small and medium enterprises in Nakuru town.

Significance of the Study

KRA will be able to use the findings from this study to critically assess the implementation and utilizations of ETRs by SMEs in Kenya and Nakuru town in particular. This will help in promoting effective implementation and utilization of ETRs by SMEs as well as ensure adequate revenue collection for the government to meet public service demands. Entrepreneurs will use the findings to understand the financial benefits associated with electronic recording of transactions and filing of VAT returns on time. This will help them in addressing problems facing the implementation and utilization of ETR machines and maintenance costs. Researchers on automated tax collection will benefit from the findings of this the study for a reference purpose especially on electronic tax registers implementation and utilization by SMEs in Kenya.

Scope of the Study

This study focused on factors influencing effective implementation and utilization of electronic tax registers by small and medium enterprises in Nakuru town. As a result, effective implementation was studied based on compliance costs, training, compliance levels and perceptions to tax compliance levels. The study was conducted for three months between August and October 2017.

Limitations of the Study

The study faced limitations arising from a perception of fear of investigation of the participants on tax compliance levels. This was overcome by an assurance using letter of introduction from the university that the information provided was to be used for academic studies only and that it could not be disclosed or used for other purposes.

LITERATURE REVIEW

Theoretical Review

This section explored theories that were relevant to this study. Therefore, the study was guided by Ability to Pay Theory of Taxation, the Cost of service theory of taxation and Khaldun's Theory of Taxation.

Ability to Pay Theory

Postulated by Arthur (1948), the ability-to-pay approach treats government revenue and expenditures separately. Taxes are based on taxpayers' ability to pay; there is no *quid pro quo*. Taxes paid are seen as a sacrifice by taxpayers, which raise the issues of what the sacrifice of each taxpayer should be and how it should be measured. Ability to pay, the dominant theory of taxation, is usually interpreted in terms of sacrifice. It is held to justify progressive taxation under any one of three possible interpretations of sacrifice: the equal, equal-proportional, and least-sacrifice theories. These theories rest in turn on three assumptions: the declining marginal utility of money with an increase in its supply, the existence of sacrifice. Analysis discloses each of these supports to be defective and thereby breaks down the theory of ability to pay. The ability-to-pay approach treats government revenue and expenditures separately. Taxes are based on taxpayers' ability to pay; there is no *quid pro quo*. Taxes paid are seen as a sacrifice by taxpayers and this raises the issues of what the sacrifice of each taxpayer should be and how it should be measured through equal sacrifice where total loss of utility as a result of taxation should be equal for all taxpayers (the rich will be taxed more heavily than the poor).

Equal proportional sacrifice where the proportional loss of utility as a result of taxation should be equal for all taxpayers and equal marginal sacrifice where the instantaneous loss of utility (as measured by the derivative of the utility function) as a result of taxation should be equal for all taxpayers. This therefore will entail the least aggregate sacrifice (the total sacrifice will be the least). According to Mill (1973), the ability to pay principle is interpreted in terms of sacrifice on the part of the taxpayers. Payment of tax involves some sacrifice on the part of the taxpayers. Each taxpayer should make equal sacrifice if tax burden is to be distributed equally. Mill viewed the ability to pay rule in terms of an equal sacrifice prescription.

Taxes have economic effects, and these effects entail social consequences. The choice of the taxes to be laid and rates at which they are to be applied expresses a preference for one set of economic effects, and hence of social consequences, to another. The theory of taxation, progressive or other, should correspond to these facts. According to the ability to pay theory, tax liability in its true form is a compulsory and an unconditional payment to the government. Further, there is no commercial or semi-commercial relationship between the state and the citizens. The basic tenet of this theory is that the burden of taxation should be shared by the members of society on the principles of justice and equity and that these principles necessitate that the tax burden is apportioned according to their relative ability to pay (Chigbu, Eze & Ebimobowei, 2012). This theory will form the basis for assessing tax compliance level and perceptions towards tax by SMEs in Nakuru County.

The proponents of the ability to pay theory argues that the amount of money available to wealthier people far exceeds their basic necessities and since an average consumer acts rationally, wealthier people derive less and less additional satisfaction (marginal utility) from an additional Dollar spent. In other words, the value of a dollar for a wealthy person reduces as they spend more. The marginal utility per Dollar for a poor person also falls however; it is still much higher than that of a wealthier person. This means that if equal nominal taxes were charged, it will cause unfairly high utility sacrifice for a poor person than for a wealthier person (Courtney, 1894). To equalize to the utility sacrifice caused by taxes, poor people should pay less and wealthier should pay more. Progressive taxes, which follow ability-to-pay principle, can quickly fulfill the revenue needs of a government and also result in more revenue for government, provided there is no tax evasion. Fairness is the dominant theme in almost every political debate about income tax policy. Equal sacrifice is of course simply one formal characterization of fairness (Ok, 1995). In this regard, Kenya could collect more revenue but unfortunately, tax compliance levels are below envisaged targets by the Kenya Revenue Authority (KRA).

Those who criticize the ability to pay theory argue that it is difficult if not impossible to determine the ability of a person to pay taxes. The term 'ability-to-pay' is ambiguous. It leads to questions such as: should the taxes be charged at a uniform percentage for all taxpayers or is it going to be a higher percentage on high income and low percentage on low income? Taxes allow the government to offer public goods and services and the users of those goods and services should pay taxes according to extent to which they use public goods and services and not on the basis of how much they have earned. However the classification of taxation levels has not been done using such a classification. This has eroded the tax compliance levels and perception of tax payers in Kenya.

Cost of Services Theory

This theory implies that the Government should tax the citizens according to the cost of service rendered by it. The Government renders certain services to citizens and the cost of such services should be collectively met by the citizens. The tax, an individual should bear, must be equal to the cost of benefit he or she receives. On the same note, the Cost of Service theory of Taxation is based on the opinion that if the government charges the actual cost of a service from the people, it will satisfy the idea of equity or justice in taxation. However, most of the expenditure incurred by the government cannot be fixed for each individual because it cannot be exactly determined. This may be difficult to achieve (Mastrianna, 2009). In this study, the costs of compliance, level of compliance and the perceptions to tax by SMEs will be explained more based on the tenets of this theory. Some economists were of the opinion that if the state charges actual cost of the service rend from the people, it will satisfy the idea of equity or justice in taxation.

The cost of service principle can no doubt be applied to some extent in those cases where the services are rendered out of prices and are a bit easy to determine, e.g., postal, railway services, supply of electricity, etc. But most of the expenditure incurred by the state cannot be fixed for each individual because it cannot be exactly determined. For instance, how can we measure the cost of service of the police, armed forces, judiciary, etc., to different individuals? Dalton has also rejected this theory on the ground that there s no quid pro qua in a tax. The critics of this theory have argued that finding out total cost of services rendered by the Government is very difficult and therefore, the question of distribution of total cost among citizens is not so easy to solve. Secondly**,** if we presume that the total cost of services can be determined, the next difficulty is how to divide the cost of the services among individuals.

Thirdly, if this theory is followed in the modern welfare state, the poorer will have to pay more taxes because they enjoy more benefits. Hence, it is opposite to the principle of justice. Fourthly and finally, the cost of the services rendered depends very much on the efficiency of the administrator. If the administrator is efficient, the cost would be lower and if the administrator is inefficient, the cost of the benefit would be higher. It emphasizes the semi-commercial relationship between the state and the citizens to a greater extent. In this theory, the state is being asked to give up basic protective and welfare functions. It is to scrupulously recover the cost of the services and therefore this theory implies a balanced budget policy. If the administrator is efficient, the cost would be lower and if the administrator is inefficient, the cost of the benefit would be higher. These factors determine the compliance levels and costs by the tax payers.

Khaldun's Theory of Taxation

This theory was postulated by Ibn Khaldun in the 14^{th} century. The core of Ibn Khaldun's theory of taxation is to lower as much as possible the amounts of individual imposts levied upon persons capable of undertaking business enterprises. The theory advocates for decreasing the burden of taxation on businessmen and producers, in order to encourage enterprise by ensuring greater profits to entrepreneur and revenue to the government (Islahi, 2006). As a result, enterprises increase in number and size and thus permit tax base, tax revenue, and governmental surplus to grow. Ibn Khaldun's theory of taxation has been considered an original and one of his most important contributions to economic thought.

It is his theory of taxation that has cemented his position in the history of economics. He does not discuss public finance in conventional way. This he leaves for works dealing with the government rules. His focus of attention is taxation. He relates it with the government expenditure. Ibn Khaldun argued for low tax rate so that incentive to work is not killed and taxes are paid happily. According to him, when government is honest and people-friendly, as it happens to be at the beginning of a dynasty, "taxation yields large revenue from small assessment. At the end of a dynasty, taxation yields small revenue from large assessment. The effect of taxation on incentives and productivity is so clearly visualized by Ibn Khaldun that he seems to have grasped the concept of optimum taxation.

He also analyzed the effect of government expenditure on the economy. He advocates a policy of wise and productive public expenditure. He has rightly been considered as the forerunner of the famous American economist Arthur Laffer, whose proposition adds that high tax rates shrink the tax base because they reduce the economic activity. Ibn Khaldun's ideas are 'comparable with those of supply-side economics that emphasized incentives and tax cuts as a means of economic growth. This was the dominant theme during the 1980s. Ibn Khaldun lived during a period of turmoil and stagnation. To him it was not a 'habitual or normal' situation, but as a phase of decline interrupted by vain attempts of revival. He studied this period of ossification punctured by intermittent crises (Lacoste, 1984).

Rulers lost spirit of the religion, stability was replaced by anarchy; luxurious style of life did away with the simple living, and to stay in power with all these symbols of decadence, excessive taxation was imposed which acted as a powerful disincentive for undertaking economic activities. Arbitrary appropriation of people's property by the government resulted in slackening in enterprises. Trading houses owned by rulers weakened the competitive spirit of commoners. In the opinion of Spengler (1964), Ibn Khaldun must have acquired much of his quite solid understanding of economic behavior through his legal and administrative experience and through his contact with the pool of unwritten administrative knowledge. According to

Lacoste (1984), Ibn Khaldun believes that there is close connection between the organization of production, social structure, and forms of political life, juridical systems, social psychology and ideologies. To Boulakia (1971), Ibn Khaldun discovered a great number of fundamental economic notions a few centuries before their official births. He discovered the virtues and the necessity of a division of labor before Smith and the principle of labor value before Ricardo. He elaborated a theory of population before Malthus and insisted on the role of the state on the economy before Keynes. Thus, Ibn Khaldun's ideas on taxation and government expenditure bear empirical evidence and have great relevance today. In this study, the application of Ibn's ideas will be used in guiding the understanding of tax compliance level, costs and perceptions as well as training of the tax payers. The behavior of non-compliance to taxation will be easily explored basing on tenets of this theory in order to establish how effective implementation of ETR machines has been done in Nakuru town.

Empirical Review

This section reviewed literature relevant to the factors influencing effective implementation and utilization of ETR machines by SMEs in Kenya.

Compliance Costs and Effective Implementation and Utilization of Electronic Tax Registers

ICPAK (2005) noted that the implementation of tax registers has not been successful in other countries like Turkey and Tanzania. The Electronic Tax Register (ETR) regime is too cumbersome for businesses that have a minimal number of transactions. The cost of implementing the ETR would outweigh benefits to KRA from any incremental tax collected as a result of ETR. However, in a presentation on the implementation of ETR system by KRA in August 2006, it was argued that compliance had risen to over 35% of VAT registered taxpayers. Nkote and Lilian (2010) studied the effect of automation and customs tax administration in the case of Uganda. The researchers investigated the adoption of automation in URA in achieving efficiency and increasing revenue collection. Some of the results they reported showed inconsistency of the automation in improving efficiency in tax administration. The result generally showed that automation predicted the cost of tax administration and effectiveness of revenue collection though it predicted clearance time negatively. This means that the cost of tax administration was increased with increasing automation and the time taken to clear tax declarations reduced with increased computerization of tax administration at URA. The implications were that URA achieved the computerization of customs tax administration at an increasing rate of costs due to incomplete automation of all the systems.

Weichenrieder (2007) posits that the taxation of SMEs faces several major policy challenges that include compliance costs of taxation, revenue cost, tax evasion, incorporation and definition of SMEs. Chilipunde and Shakantu (2010) further argue that the SMEs' management have inadequate training and business skills and hence have a high prevalence of unethical conduct of non-compliance. 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).

According to Cowell (1992), there are 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. 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.

Existing empirical evidence clearly indicates that small and medium sized businesses are affected disproportionately by these costs: when scaled by sales or assets, the compliance costs of SMEs are higher than for large businesses. Given that small start-ups and research oriented SMEs are generally considered as important factors for economic growth, tax compliance cost may slow down the economy. At least two policy responses to the problem of compliance costs are conceivable. Governments could try to generally simplify tax administration for businesses. At the same time, special responses targeted at SMEs are conceivable. For example, a widely observed measure to reduce the cost for small businesses are exemption thresholds under value added taxation. 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).

Training and Effective Implementation and Utilization of Electronic Tax Registers

According to Armstrong (2006), the contribution of Human Resource will often take the right tasks, structures, processes and systems to support and implement change. Change is a continuous process that can be implemented in phases and requires constant reviewing. This is true with the implementation and utilization of ETRs. It is not a one off process but requires continuous improvement on systems, skills and processes to realize its objectives. 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 training and capacity building of tax officials and tax payers.

Training and educating taxpayers is expected to deal with non-compliance practices among the taxpayers especially in the informal sector (Kimingu & Kileva, 2007). This is based on the possibility of noncompliance being unintentional, where the taxpayer is not aware of his/her tax obligations or fails to fulfill his/her tax obligations due to ignorance of tax laws and procedures or may be intentional due to the compliance attitudes (Christina, Deboral & Gray, 2003). Taxpayer education program serves to: create taxpayer awareness of laws and procedures, educate taxpayers on their tax responsibilities and rights, assist and motivate taxpayer to comply voluntarily, assist taxpayers on reporting the correct income and amount of tax, maintaining close relationship between the tax authority and the taxpayer continuously and instill public confidence in taxation system (Oyedele, 2009).

Training enables the taxpayer to understand tax laws and procedures as well as creating positive tax compliance attitude (Normala, 2007). The tax authorities have given special attention on the business, by simplification of the tax laws procedures, associations, annuals taxpayers' appreciation day, and integrity enhancement as among the strategies (Kianuka, 2004; Kimungu and Kileva, 2007). Tax Education to the business owners becomes necessary when the objective of rising tax revenue in the changing environment; particularly from the official tax assessment is considered (Normala, 2007). 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 increased education and awareness on tax obligations or improvement in economic growth. 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). According to Muita (2011), it is the embracing of emerging technologies and tax payment methods that are more efficient to reduce wastage.

Compliance Level

Tax compliance refers to the degree to which taxpayers meet their obligations under the tax law (Kimungu & Kileva, 2007). All individual taxpayers and businesses should fulfill their obligations under the law to register for tax purposes, and to voluntarily declare and pay on time their tax liabilities (Christina, Deboral & Gray, 2003). Tan and Chin-Fatt (2008) state that tax compliance by taxpayers can be viewed in terms of whether such compliance is achieved voluntarily (quasi-voluntary compliance) or corrected by enforcement actions carried out by the revenue administration (enforced compliance). Further, Torgler (2005) found that people who knew or had heard about tax avoidance appear to have lower tax morale than others. In addition, trust in public officials, the belief that other people obey the law and a pro-democratic attitude significantly improve or raise tax morale and compliance level. The VAT act Cap 476 (Laws of Kenya) requires that once a tax payer is registered, he/she 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. According to Ritsema et al. (2003), tax compliance decision depends on income level of an individual taxpayer, inspection (audit) by tax authorities and deterrent measures put in place. Mwikali (2006) noted that VAT is the most rigid tax system. The empirical analysis indicates that reforms raised the productivity of the tax system with exception of the VAT. In addition, the issue of tax compliance is a major concern for many developing countries (Sanker, 2003). The reasons for resistance to change as described by Swanson (2000) include among others: Lack of conviction of the need for change; dislike of imposed change/no involvement in the change; dislike of surprises/no information for readiness, fear of the unknown, and uncertainty; Reluctance to deal with unpopular issues; fear of inadequacy and failures due to the need for new skills; disturbed practices, habits, relations and familiarity; and lack of respect and trust in persons promoting change.

The tax policy is concerned about the impact of taxes on economic efficiency, aggregate demand and income distribution. However, whenever there are taxes, there will be tax evasion. Though tax policy cannot be concerned solely or even primarily with minimizing evasion, the fact of evasion and its consequences, it alters the way in which taxes impact on economic efficiency and income distribution. Therefore, the informal economy needs to be taken into account in predicting the impacts of tax changes (Giles & Tedds, 2001). By contrast, somebody who never files a tax return is likely to be safer and may completely escape the notice of the authorities (Spiro, 2005). According to Spiro (2005), the reasons for non-compliance are instructive. For instance, taxpayers lack the requisite knowledge of the tax law, taxpayers interpret the law differently from the Internal Revenue Service of the USA, taxpayers lack record keeping ability sufficient to satisfy the Internal Revenue Service and the taxpayers do their math wrongly, or they rely on professional return preparers who get it wrong.

Lower tax rates, all other things being equal, imply lower evasion because the benefits from evasion decline while the costs of evasion remain comparable (Shapiro, 2005). Registration practices are often unnecessarily bureaucratic and may involve multiple agencies, and multiple crosschecks; complex due to the different laws, norms, documents and forms required; expensive, and time-consuming. According to International Tax Dialogue (2007), delays in business registration, which often involves multiple government institutions including the tax administration, can be a significant impediment to business formation and particularly harmful to the small entrepreneur with limited start-up cash reserves. In Australia and Canada a business can be opened within 2-3 days, elsewhere, it can take over 100 days in others. For the SME operating with limited capital and professional support, such start-up delays and increased costs raise the risk of business failure. Such a frustrating situation can lead to SMEs being formed without proper registration and avoid the detection by the tax collection agency and become untraceable.

Perceptions to Tax Compliance

SMEs with closer ownership and management linkages have greater propensity to underreport some or all of their income unlike the large scale firms. Despite the strong foundation provided by the tax collection systems and streamlined procedures, many SMEs exploit loopholes afforded by, for instance, single-owner operations and cash intensive businesses (KRA, 2007). The overall integrity of any tax system is dependent upon the public's perceptions of its enforcement effectiveness through predictable and prompt enforcement action against non registration and following non-filing and non-payment of taxes. The tax administrators therefore must aggressively pursue, at a minimum, medium-to-high-risk non-filers and taxpayers who misreport. IFC (2007) opines that small businesses form the core group of hard-to-tax taxpayers. It is not uncommon in developing countries that a larger percentage of small businesses operate in the informal rather than in the formal economy. While small businesses in no way constitute the only source of underground economy activities, data about the size of the underground economy still can provide a proxy for the scope of the problem.

Most importantly, Alm and Torgler (2006) stressed that 'individuals exhibit much diversity in their behavior'. Some are primarily worried about getting caught and penalized. Others (especially business people who face competition) are more concerned about the behavior of other taxpayers, neighbors, or competitors. Still others think in terms of civic duty or public services and may weigh those considerations against the perceived accountability and efficiency of the government in tax collection. These different factors are all likely to vary across countries, institutions, and cultures, and much information about such factors can be estimated from surveys. Internationally, Alm and Martinez-Vazquez (2003) found that tax revenues increase with greater enforcement efforts, but this payoff declines as the probability of being caught and punished for tax evasion increases. They later noted that compliance increases with the availability of public goods and services, and suggest that government can increase compliance by providing goods that their citizens prefer more, by providing these goods more efficiently, or by more effectively emphasizing that taxes are needed to provide government services.

Feld and Frey (2002) found evidence that tax morale is also significantly influenced by interactions between taxpayers and tax authorities, with more respectful behavior from tax authorities associated with higher rates of tax compliance. Using survey-based evidence and experimental results from Botswana, South Africa, and the United States, Cummings et al. (2004) came to similar conclusions. Tax morale and compliance levels appear to be influenced by the fairness of the tax administration, perceived fiscal exchanges, and overall attitudes toward governments. In South Africa, Fjeldstad (2004) analyzed compliance with local service charges (user fees that bear some similarity to taxes) using survey data and found that failure to comply with them (which varied considerably within communities and between communities with similar socioeconomic characteristics) was associated with ability to pay and strongly correlated with trust.

Effective Implementation and Utilization of ETR Machines

The KRA introduced ETRs in 2005 to ensure full remittance of VAT by retailers. This was resisted openly through strikes and street demonstrations in major towns. Currently, ETRs are the subject of court battles between KRA and Traders (under the United Business Association). The introduction of Simba 2005 system, an online value declaration customs system, has been strongly resisted, especially after it became evident that some imported vehicles had escaped the net following collusion between importers and customs officials. An unfriendly political economy that is not amenable to rational tax policy may prevent significant tax reform implementation especially ETRs. The political elite, who posses high personal income, wealth and property, may use their political influence to oppose the imposition of wealth and property taxes.

VAT is a broad-based, multi-stage and is collected in small doses as the product moves through production, processing and distribution ((Thisen, 2003). Similarly, there have been tax reforms, through stiffer penalties to discourage late VAT returns, failure to issue VAT invoices and failure to keep proper accounting records. Owing to problems related to corruption and weak controls in the administration of the VAT refund system; there have been measures to tighten verification measures and eliminating backlogs of claims although the refund system is still problematic. This discourages SMEs from acquiring ETRs and utilizing them to remit VAT.

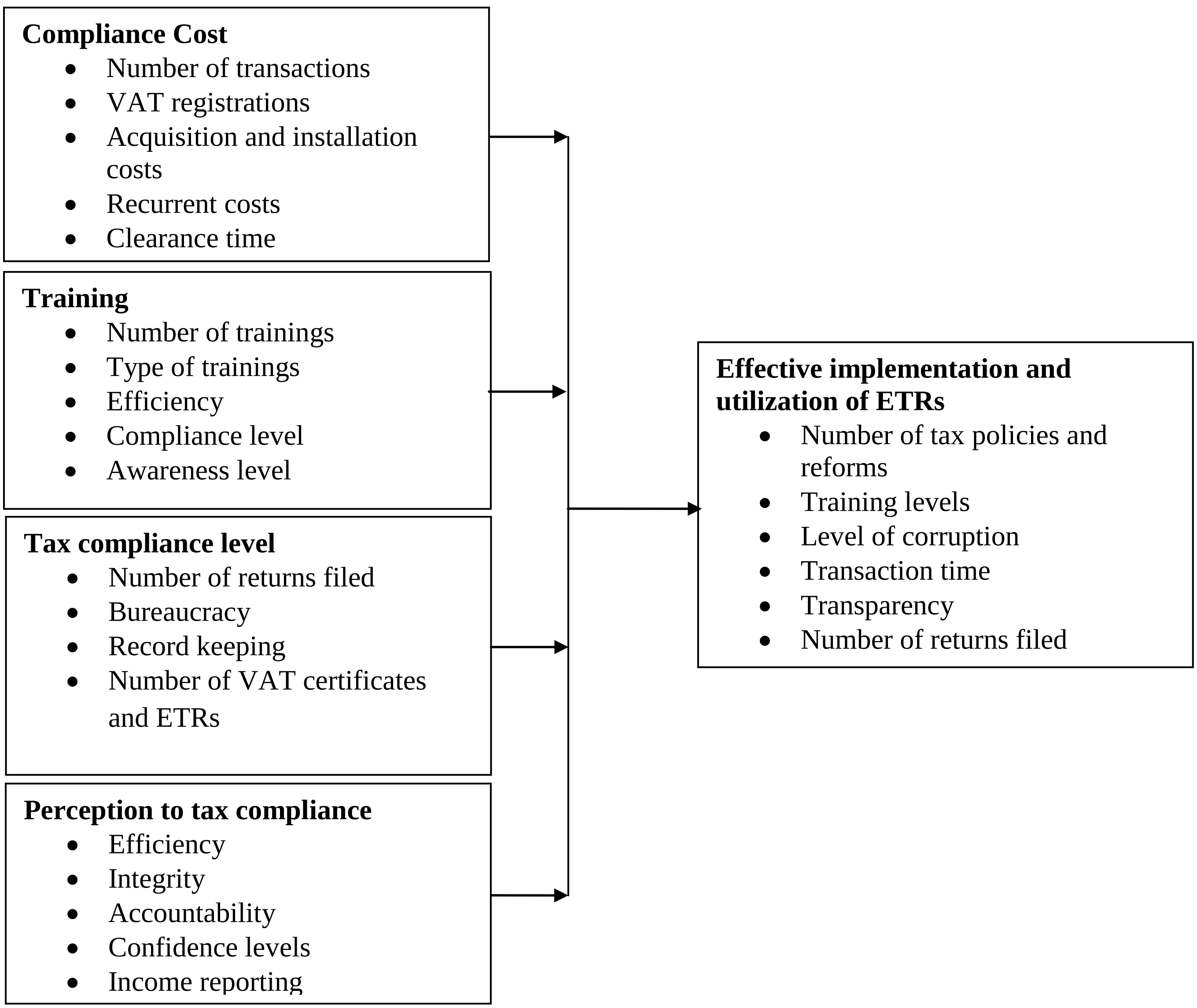
Since nobody enjoys paying taxes, economic agents deflect the tax burden by altering their economic choices, although this has adverse effects on efficiency and productivity. However, if VAT is sufficiently broad-based, the consumers have little scope to avoid the tax by changing their spending patterns. Institute of Economic Affairs (2006) posits that the administration of VAT relies heavily on proper recording of transactions at each stage production, processing and distribution; as the product moves towards its final market. But this requires transparency in running business transactions and lengthens the compliance process. Long processes of verification, approval and validation create loopholes for tax evasion. According to Karingi et al., (2005), VAT also requires regular returns from a large number of firms.

However, with proper record-keeping, one advantage of VAT is that it creates a clear invoice trail, making it much easier to detect and deter tax evasion. Similarly, the multistage structure of VAT induces firms to register voluntarily as taxpayers. However, there are different rates of tax for various goods and services, which makes it difficult for average citizens and SMEs to understand what is expected of them. There is mistrust which generates a game theoretic coexistence between tax agents and tax payers, with agents perceiving taxpayers as criminals unwilling to pay their taxes, and tax payers wary of government agencies' highhandedness in collection of taxes (KRA, 2004). This has created the need for the tax agents to improve their image by building trust and public confidence. With Kenyan firms reporting that about 68.2% of profit is taken away in taxes, tax competitiveness is low and Kenya remains among the most tax unfriendly countries in the world.

Conceptual Framework

From the conceptual framework, effective implementation and utilization of ETR was the dependent variable while compliance cost, training, tax compliance level and perception towards tax compliance were the independent variables.

Figure 1: Conceptual Framework



Summary and Research Gaps

From the reviewed literature, the implementation of tax registers has not been successful in a number of countries. ETR has become cumbersome for businesses that have a minimal number of transactions. The cost of implementing the ETR is not affordable by quite a number of SMEs. The contribution of Human Resource will often take the right tasks, structures, processes and systems to support and implement change. This is true with the implementation and utilization of ETRs. It is not a one off process but Tax compliance requires taxpayers to meet their obligations under the tax law. All individual taxpayers and businesses should fulfill their obligations under the law to register for tax purposes, and to voluntarily declare and pay on time their tax liabilities. SMEs with closer ownership and management linkages have greater propensity to underreport some or all of their income unlike the large scale firms. Despite the strong foundation provided by the tax collection systems and streamlined procedures, many SMEs exploit loopholes afforded by, for instance, single-owner operations and cash intensive businesses. The adoption of Electronic Tax Registers (ETR) in Kenya through KRA has created a significant positive impact on timely filling of the monthly VAT returns.

However, use of ETR in processing tax returns has been made with mixed reactions, resistance and perceptions while KRA believes it has increased efficiency in operations and revenue collection. Recurrent maintenance cost, ETR handling and higher compliance costs have been reported as major problems tax payers face. There have been inconsistencies of the automation in improving efficiency in tax administration in Kenya. KRA has experienced inconsistency in business classification. Additionally, uncertainty hinders measurement of taxation compliance costs and difficulty in identifying costs. Further, ETR suppliers have not been giving adequate service and training as they are required under legislation. Fixing ETR technical problems bears high maintenance cost for SMEs while at the same time, they are not sufficiently trained to handle technical issues.

This has greatly influenced the cost of running the ETRs. This has been compounded by the fact that only the KRA officials are adequately conversant with ETR. Some shy off from acquiring ETR because they lack computer knowledge, access to internet and unstable power supply as major reasons. Some ETRs have also malfunctioned and suppliers have not been responsive enough to solve the problems. Additionally, tax compliance levels still remain low and tax collections are below the set targets. Some traders argue that ETRs are an extra burden; implementation costs are high and not recoverable for tax purposes. This creates varied perceptions on ETR adoption. It is unclear to what extent these laws contribute to adoption and utilization (or lack of it) of ETRs.

RESEARCH METHODOLOGY

Research Design

According to Kombo et al. (2002), research design is the scheme; outline or plan that is used to generate answers to research problems. Therefore, this study adopted an analytical research design. This research design was preferred because it helps to identify any causal links between the factors or variables that pertain to the research problem. Explanatory research attempts to clarify why and how there is a relationship between two or more aspects of a situation or phenomenon under study.

Target Population

Population according to Kothari, (2013) is the universe of interest. It is the total number of subjects or the total environment of interest to the researcher. According to Castillo (2009), a research population is generally a large collection of individuals or objects that is the main focus of a scientific query. This study targeted 680 registered SMEs operating in Nakuru town. The SMEs comprised of service providers, Merchandisers and manufacturing enterprises.

Sampling Frame

According to Silverman (2005), the sampling frame should be large to allow the researcher to make inferences of the entire population. The sample frame for this study comprised of 657 SMEs operating in Nakuru town.

Table 1. Sample Frame

Respondents	Target population	Percentage (%)
Service providers	306	46.6
Merchandisers	263	40.0
Manufacturers	88	13.4
Total	**657**	**100.0**

Source: KRA Nakuru Branch

Sample Size and Sampling Procedure

A sample is a smaller group or sub-group obtained from the accessible population (Mugenda & Mugenda, 2003). According to Borg and Gall (2003) at least 30% of the total population is representative. Thus, 30% of the accessible population is enough for the sample size. Thus, the sample size for this study was (0.3 x 657) = 197. Stratified random sampling was used to select participants from each stratum of the target population.

Table 2. Sample Size Distribution

Respondents	**Target population**	**Sample Size**
Service providers	306	92
Merchandisers	263	79
Manufacturers	88	26
Total	**657**	**197**

Data Collection Instrument and Procedure

The study used a semi-structured questionnaire to collect data from the respondents. Questionnaires are research instruments used to collect information geared towards addressing specific objectives (Kombo et al., 2002). The questionnaire items comprised of questions scaled on a five point Likert scale as well as open ended questions. The questionnaires were self-administered on a drop and pick later basis.

Pilot Study

Prior to conducting the main research, a pilot study was conducted in Naivasha town to test reliability and validity of the research instrument by pre-testing the questionnaire. Mugenda and Mugenda (2003) recommend a 10% of the sample size to be considered as a sample size in a pilot study. In this study, a sample size of 20 respondents participated in the pilot study and the results of the pilot study were not included in the final data analysis.

Validity of the Research Instrument

Validity is the degree to which an instrument measures what is supposed to measure (Kothari, 2004). Validity is the accuracy and meaningfulness of inferences, which are based on the research results (Mugenda & Mugenda 2003). Validity is also the degree to which an instrument measures what is supposed to measure (Kothari, 2004). The validity of the research instrument was established through consultation with the research supervisor. Furthermore, the questionnaire was subjected to pre-test to detect any deficiencies in it. Comments and suggestions made by the pre-test respondents were incorporated in order to address some insufficiencies in the questionnaire.

Reliability of the Research Instrument

Reliability is a measure of the degree to which a research instrument yields consistent results after several trials (Mugenda & Mugenda, 2003). According to Kombo & Tromp (2006), reliability is the extent to which results are consistent overtime. Cronbach alpha scores will be used to test the internal consistency estimate of reliability of the test scores with a threshold of 0.7 ($\alpha > 0.7$). The higher the score, the more reliable the alpha scores for acceptability of reliability coefficients (Creswell, 2002).

Data Analysis

Data analysis consists of examining categorizing; tabulating or otherwise recombining the evidence to address the initial prepositions of the study (Savenye, Robinson, 2004). The data collected was edited, collated to eliminate errors and coded for analysis using the Statistical Package for Social Sciences (SPSS version 23) tool. The coded data was analyzed both quantitatively and qualitatively. Descriptive analysis (mean, standard deviation and percentages) will be generated. Further, inferential analysis (correlation and regression) was conducted to the test the statistical significance of the results.

The regression model which was used is illustrated below.

$$\mathbf{Y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where,

Y represents Effective implementation and utilization of ETR, X_1 represents Compliance Costs, X_2 represents Training, X_3 represents Tax compliance level and X_4 represents Perceptions to tax compliance, ε represents the error term, β 1, β 2, β 3 and β 4 are the net changes in Y

Pilot Study Results

A pilot study was conducted in Naivasha town. 10% of the study sample (20 participants) as recommended by Mugenda and Mugenda (2003) was randomly selected and administered with questionnaires. The response rate was 100%. The questionnaires were coded and Cronbach's Alpha analysis was then conducted. All the 4 variables gave Cronbach's Alpha coefficient values greater than 0.7 as shown in Table 3. From the study results, the variables had 5, 6, 6, 6 and 6 items with Cronbach Alpha values of 0.748, 0.729, 0.733, 0.742 and 0.726 respectively. Therefore, compliance cost, training, tax compliance level, perceptions to tax and effective implementation of Electronic tax registers (ETR) all had Cronbach values which were greater than 0.7. A correlation coefficient greater or equal to 0.7 is acceptable (George & Mallery, 2003). Field et al., (2012) observes that a Cronbach's $\alpha > 0.7$ implies that the research instrument provides a relatively good measure. The results of the pilot study were not included in the final data analysis.

Table 3. Reliability Test Results

Variable	No. of Items	Cronbach's Alpha Coefficients
Compliance cost	5	.748
Training on ETR	6	.729
Tax compliance level	6	.733
Perceptions to tax	6	.742
Effective Implementation of ETR	6	.726

FINDINGS AND DISCUSSION

Response Rate

The study targeted a sample size of 196 participants out of which 158 questionnaires were filled and returned and therefore they were used for data analysis giving a response rate of 80.6%. Cooper and Schindler (2003) argued that a response rate exceeding 30% of the total sample size provides enough data that can be used to generalize the characteristics of a study problem as expressed by the opinions of a few participants in the target population. According to Mugenda and Mugenda (2003), a response rate of 50% is adequate for analysis and reporting but a response rate of 70% and above is excellent. The high response rate was occasioned by appropriate study design, proper timing and consistent follow up of the participants. The use of the drop and pick later method also improved the response rate because it gave adequate time to the participants to fill the questionnaire.

Demographic Profile of the Participants

The study sort to ascertain the demographic characteristics of the participants because they play a great role in determining the nature of information provided. The analysis relied on the information of the participants to classify the different results according to their knowledge and responses. The demographic data analyzed comprised of gender, age categories, highest academic qualifications, role played in SMEs and working experience with SMEs in Nakuru town.

Gender Distribution of the Participants

The study sought to establish the gender distribution of the participants as shown in Table 4. Majority of the participants were male (62.03%) while 37.97% of the participants were female in gender.

Table 4. Gender of the Participants

Gender	Frequency	Percent (%)
Male	98	62.03
Female	60	37.97
Total	**158**	**100.0**

Age Categories of the Participants

The study sought to determine the age categories of the participants as shown in Table 5. From the findings, 15.19% of the participants were aged between 20 to 25 years, 15.19% were aged between 26 and 30 years, 39.24% were aged between 31 to 35 years while 30.38% were aged 35 years and above. Therefore, majority of the respondents were aged between 31 and 35 years implying that majority of the SME owners were relatively young in age.

Table 5. Age of the Participants

Age	Frequency	Percent (%)
20-25 years	24	15.19
26-30 years	24	15.19
31-35 years	62	39.24
Above 35 years	48	30.38
Total	**158**	**100.0**

Highest Academic Qualifications of the Participants

The study also sought to find out the highest academic qualifications of the participants. From Table 6, majority of the participants' (37.98%) had attained secondary education. This was followed by those who had attained certificate education (30.38%), diploma (16.46%), degrees (7.59%) while 7.59% attained postgraduate level of education. Thus majority of the participants were adequately educated to comprehend and answer the study questions appropriately.

Table 6. Academic Qualifications of the Participants

Level	Frequency	Percent (%)
Secondary	60	37.98
Certificate	48	30.38
Diploma	26	16.46
Degree	12	7.59
Postgraduate	12	7.59
Total	**158**	**100.0**

Roles in Small and Medium Enterprises

The study asked the participants to indicate the roles they played in the small and medium enterprises as shown in Table 7. The study findings established that majority (46.2%) were service providers, 22.8% were merchandisers and 31% were manufacturers respectively.

Table 7. Roles in Small and Medium Enterprises

Roles	**Frequency**	**Percent (%)**
Manufacturer	49	31
Merchandiser	36	22.8
Service Providers	73	46.2
Total	**158**	**100.0**

Working Experience with Small and Medium Enterprises

The study asked the participants to indicate the length of experience in years they had been involved with SMEs as shown in Table 8. The study findings established that majority (38.62%) had worked with SMEs for over 10 years, 37.97% had worked for less than one year, 15.82% had worked for 1-5 years and 7.59% had worked for 5-10 years. The findings imply that majority of the participants had sufficient length of experience with SMEs and were therefore able to effectively and sufficiently provide the information sought by the study.

Table 8. Working Experience with Small and Medium Enterprises

Experience	**Frequency**	**Percent (%)**
Less than 1 year	60	37.97
1-5 years	25	15.82
5-10 years	2	7.59
Above 10 years	61	38.62
Total	**158**	**100.0**

Descriptive Analysis

Descriptive analysis focuses on describing the basic features of data in a given study (Cooper & Schindler, 2013). In this section, descriptive analysis was used to summarize findings regarding compliance cost, training on ETR, tax compliance level, perceptions to tax and effective implementation and utilization of Electronic Tax Registers (ETR).

Influence of Compliance Cost on Implementation and Utilization of Tax Registers

The study sought to establish the influence of cost compliance on the implementation and utilization of electronic tax registers (ETRs). Several statements were fronted to which the participants responded to on a five-point Likert scale as shown in Table 9.

Table 9. Influence of Compliance Cost on Implementation and Utilization of Tax Registers

Statements on Compliance	SD	D	N	A	SA	χ^2	P> χ^2
i. SMEs find ETR cumbersome especially when dealing with a small number of transactions	15.19		15.19	46.2	23.42	40.7	<.0001
ii. Compliance costs for ETR have risen over 35% of the registered VAT tax payers	15.19	7.59	22.78	38.61	15.82	43.3	<.0001
iii. Online submission of tax returns by SMEs has made it possible to eliminate costs of manual filing of returns	15.19	7.59	31.01	31.01	15.19	35	<.0001
iv. The cost of acquiring an ETR and costs of installation are affordable by SMEs.	15.19	7.59	46.84	22.78	7.59	83.6	<.0001
v. Recurrent costs of repair discourage SMEs from acquiring and using ETRs	15.19	8.23	46.2	15.19	15.19	70.2	<.0001

The findings on whether SMEs find ETR cumbersome especially when dealing with a small number of transactions 46.2% and 23.4% agreed and strongly agreed respectively $(\chi^2 = 40.7, P \leq 0.001)$. Moreover, the study sought to establish whether compliance costs for ETR have risen over 35% of the registered VAT tax payers. About 38.6% were in agreement while 15.8% strongly agreed $(\chi^2 = 43.3, P \leq 0.001)$. Correspondingly, the study sought to find out whether online submission of tax returns by SMEs has made it possible to eliminate costs of manual filing of returns. About 31% were neutral and another 31% were in agreement in their responses to the statement $(\chi^2 = 35.0, P \leq 0.001)$. The finding were consistent with those of Lumumba et al., (2010) that the introduction of ETR has assisted in cutting costs that the business used to incur in processing VAT. The study also sought to determine whether the cost of acquiring an ETR and costs of installation are affordable by SMEs. From the responses, majority of the participants (46.8%) were undecided $(\chi^2 = 83.6, P \leq 0.001)$. Furthermore, the study sought to establish whether recurrent costs of repair discourage SMEs from acquiring and using ETRs. Majority of the participants (46.2%) were neutral in their responses to the statement $(\chi^2 = 70.2, P \leq 0.001)$. The study also sought to determine the challenges SMEs face on ETR compliance costs and majority of the responses indicated that ETRs are expensive high costs of installations, lack of sufficient technical skills to manage ETRs, acquisition costs are paid in installments, high cost of buying ETR compatible computers and that some SMEs have point of sale software making it expensive to change and adopt to ETRs.

Influence of Training on Implementation and Utilization of Electronic Tax Registers

In addition, the study sought to establish the influence of training on the implementation and utilization of electronic tax registers as shown in Table 10. The first statement asked whether ETR requires continuous improvement of skills, systems and processes to realize its objectives and majority of the participants (38.6%) were in agreement and 22.8% were neutral $(\chi^2 = 43.3, P \leq 0.001)$. The second question sought to find out whether ETR require extensive training and capacity building of SMEs to enhance efficiency. The result indicated that about 45.6% were in agreement while 15.2% strongly agreed $(\chi^2 = 38.3, P \leq 0.001)$. This finding is congruent to those Kimingu and Kileva (2007) that training and educating taxpayers is expected to deal with non-compliance practices among the taxpayers especially in the informal sector.

In the third statement, the study asked the participants whether training SMEs on tax laws, procedures and responsibilities lowers non-compliance levels, majority, 53.2% of the participants $(\chi^2 = 113.2, P \leq 0.001)$ were in agreement. The fourth statement asked whether training SMEs on ETR and tax compliance instills public confidence in the taxation system. Majority of the participants (53.8%) were undecided $(\chi^2 = 77.8, P \leq 0.001)$. The fifth statement sought to establish whether tax administration authorities in Kenya have prioritized training of SMEs to enhance revenue collection and majority (38.6%) of the participants $(\chi^2 = 48.6, P \leq 0.001)$ were unsure in their responses to the statement. This finding is inconsistent with that of Oyedele (2009) who posited that taxpayer education program serves to create taxpayer awareness of laws and procedures, educate taxpayers on their tax responsibilities and rights, assist and motivate taxpayer to comply voluntarily. The sixth statement sought to ascertain whether SMEs are trained on ETR technical skills and are able to resolve the issues on time instead of relying on tax officials for repairs. The findings indicated that majority of the participants (46.2%) were neutral $(\chi^2 = 71.4, P \leq 0.001)$ The study also asked the participants to suggest ways training on ETR can be enhanced to benefit more SMEs to adopt and use the ETR machines to submit tax returns. Majority of the participants felt that KRA should educate SMEs on servicing of ETRs, utilization of ETRs and conduct regular checkups and trainings to foster compliance levels.

Table 10. Influence of Training on Implementation and Utilization of Electronic Tax Registers

Statements on Training on ETRs		SD	D	N	A	SA	χ^2	P> χ^2
i.	ETR requires continuous improvement of skills, systems and processes to realize its objectives	15.19	7.59	22.78	38.61	15.82	43.3	<.0001
ii.	ETR require extensive training and capacity building of SMEs to enhance efficiency	15.82	0.0	23.42	45.57	15.19	38.3	<.0001
iii.	Training SMEs on tax laws, procedures and responsibilities lowers non-compliance levels	15.19	7.59	15.82	53.16	8.23	113.2	<.0001
iv.	Training SMEs on ETR and tax compliance instills public confidence in the taxation system	15.19	0.0	53.8	23.42	7.59	77.8	<.0001
v.	Tax administration authorities in Kenya have prioritized training of SMEs to enhance revenue collection	15.19	0.0	38.61	38.61	7.59	48.6	<.0001
vi.	SMEs are trained on ETR technical skills and are able to resolve the issues on time instead of relying on tax officials for repairs	15.19	7.59	15.82	46.2	15.19	71.4	<.0001

Influence of Tax Compliance Level on Implementation and Utilization of Electronic Tax Registers

The study sought to assess the influence of tax compliance level on the implementation and utilization of ETRs as shown in Table 11. The first statement asked the participants whether SMEs meet their tax obligations by filing VAT returns according to the tax law. The result implies that majority of the participants (53.8%) were in agreement in their responses $(\chi^2 = 77.8, P \leq 0.001)$. The participants were further asked whether non-registered SMEs attract heavy penalties and fines for failing to adhere to the tax laws and majority (53.8%) were undecided in their responses $(\chi^2 = 117.8, P \leq 0.001)$. The findings are consistent with those of Alm and Martinez-Vazquez (2003) who posited that tax revenues increase with greater enforcement efforts, but this payoff declines as the probability of being caught and punished for tax evasion increases. As well, the study sought to determine whether VAT tax compliance by SMEs depend on income levels and inspections by KRA officials. The results implied that the majority of the participants (33.6%) were in agreement on their responses to the statement $(\chi^2 = 27.5, P \leq 0.001)$.

Table 11. Influence of Tax Compliance Level on Implementation and Utilization of Electronic Tax Registers

Statements on Tax Compliance		**SD**	**D**	**N**	**A**	**SA**	χ^2	**P>** χ^2
i.	SMEs meet their tax obligations by filing VAT returns according to the tax law	15.19		23.42	53.8	7.59	77.8	<.0001
ii.	Non-registered SMEs attract heavy penalties and fines for failing to adhere to the tax laws	15.19	7.59	53.8	15.82	7.59	117.8	<.0001
iii.	VAT tax compliance by SMEs depend on income levels and inspections by KRA officials	16.44	8.22	25.34	33.56	16.44	27.5	<.0001
iv.	VAT Compliance level is affected by lack of information, skills and fear/uncertainty	15.19	7.59	15.82	46.2	15.19	71.4	<.0001
v.	Bureaucratic and improper SME registration enhance tax non-compliance	15.19	8.23	22.78	38.61	15.19	42.6	<.0001
vi.	Lack of skills in proper record keeping by SMEs contributes to non-compliance	15.19		23.42	53.8	7.59	77.8	<.0001

The fourth statement sought to establish whether VAT compliance level is affected by lack of information, skills and fear/uncertainty. The majority of the participants (46.2%) were in agreement in their responses to the statement $(\chi^2 = 74.1, P \leq 0.001)$. The fifth statement asked participants whether bureaucratic and improper SME registration enhance tax non-compliance. Majority of the participants were strongly in agreement (38.6%) in their responses to the statement $(\chi^2 = 42.6, P \leq 0.001)$.The sixth statement sought to establish whether lack of skills in proper record keeping by SMEs contributes to non-compliance. Majority of the participants (53.8%) were in agreement in their responses to the statement $(\chi^2 = 77.8, P \leq 0.001)$ majority of the participants were in agreement with all the statements regarding the influence of compliance cost on the implementation and utilization of ETRs. Similarly, the study asked the participants to cite the challenges which prevent SMEs from complying with the VAT tax and adoption of ETR to enable them submit returns online. Majority of the responses indicated that SMEs are not equipped with adequate skills on ETR use, some have divided opinions on the security of the system for return submission, i-tax system is not user friendly, high penalties and fines on failure to comply and that tax laws needs to be reviewed to encourage SMEs to comply by adopting ETRs for filing VAT returns.

Influence of Perceptions to Tax Compliance on Implementation and Utilization of Electronic Tax Registers

The study sought to assess the influence of perceptions to tax compliance on the implementation and utilization of ETRs. The first statement asked the participants whether SMEs that have close ownership and management are able to file VAT tax returns as shown in Table 12. The result suggest that majority of the participants (38.6%) were in agreement $(\chi^2 = 34.2, P \leq 0.001)$.

The participants were further asked whether the overall integrity of any tax system is dependent upon the public perceptions of its enforcement efforts and majority (46.8%) were in agreement $(\chi^2 = 75.4, P \leq 0.001)$. As well, the study sought to determine whether VAT tax revenue collection increases with greater tax law enforcement. Majority of the participants (46.2%) were undecided on their responses to the statement $(\chi^2 = 81.3, P \leq 0.001)$.

Table 12. Influence of Perceptions to Tax Compliance on Implementation and Utilization of ETRs

	Statements on Perceptions to tax	SD	D	N	A	SA	χ^2	P> χ^2
i.	SMEs that have close ownership and management are able to file VAT tax returns	15.82	15.19	15.19	38.61	15.19	34.2	<.0001
ii.	The overall integrity of any tax system is dependent upon the public perceptions of its enforcement efforts	15.19	7.59	15.19	46.84	15.19	74.5	<.0001
iii.	VAT tax revenue collection increases with greater tax law enforcement	15.19	7.59	46.2	23.42	7.59	81.3	<.0001
iv.	Tax morale and compliance level is influenced by fairness of the tax administration system	15.19	0	8.23	46.2	30.38	54.1	<.0001
v.	Failure to comply to VAT tax is associated with the ability to pay and trust of the tax administration system	15.19	15.19	30.38	31.01	8.23	32.7	<.0001
vi.	Compliance to VAT tax increases when the government effectively provides public goods and services to its citizens	15.19	15.19	46.2	15.82	7.59	71.4	<.0001

The fourth statement sought to establish whether tax morale and compliance level is influenced by fairness of the tax administration system. The results indicate that majority of the participants were strongly in agreement (46.2%) in their responses to the statement $(\chi^2 = 54.1, P \leq 0.001)$. The findings were consistent with those of Feld and Frey (2002) who found evidence that tax morale is significantly influenced by interactions between taxpayers and tax authorities. The fifth statement asked participants whether failure to comply with VAT tax is associated with the ability to pay and trust of the tax administration system. The results indicated that majority of the participants (30.4%) were unsure in their responses to the statement $(\chi^2 = 32.7, P \leq 0.001)$. The sixth statement sought to establish whether compliance to VAT tax increases when the government effectively provides public goods and services to its citizens. Majority of the participants (46.2%) were undecided in their responses to the statement $(\chi^2 = 71.4, P \leq 0.001)$. The finding supports that of Normala (2007) that tax education to the business owners becomes necessary when the objective is to raise tax revenue in the changing environment particularly when official tax assessment is considered.

Moreover, the study required the participants to state ways the government through KRA can reduce negative attitudes or perception towards VAT tax compliance levels by the SMEs. Majority of the participants felt that KRA should get a buy-in from SMEs, provide skills training on ETR, KRA use other SMEs as role models to others, reinforce tax laws and encourage the public not to fear ETRs because they enhance efficiency in filing VAT returns.

Effective Implementation and Utilization of ETRS

The study further analyzed the effective implementation and utilization of ETRS. In the first statement, the participants were asked whether the tax policy and reforms on ETR for online VAT returns submission have been effectively implemented as illustrated in Table 13. Majority of the respondents (38.6%) were in agreement with the statement $(\chi^2 = 44.1, P \leq 0.001)$. The second statement sought to ascertain whether the SMEs are empowered on the tax laws, procedures, compliance requirements and penalties. From the findings, majority of the participants (46.2%) were in agreement $(\chi^2 = 81.3, P \leq 0.001)$. The finding supports that of Richardson (2008) who suggested that the government has a significant role to create positive impact on determining attitudes toward tax and tax compliance levels by its citizens. The third statement sought to establish whether the installed ETRs were efficient and have enhanced online transmission of VAT returns on time. Majority (62%) were in agreement with the statement $(\chi^2 = 177.8, P \leq 0.001)$. The fourth statement asked the participants whether there were minimal breakdowns, errors and issues being handled for ETRs being used by SMEs. The participants were (31%) impartial in their responses to the statement $(\chi^2 = 24.3, P \leq 0.001)$. The study further asked the participants whether there was reduced corruption and improved controls on the administration of VAT refund systems. Majority of the participants (38.6%) were impartial $(\chi^2 = 44.1, P \leq 0.001)$. The study also sought to find out whether there were minimal processes of verification, approval and validation of compliance processes hence few loopholes for tax evasion. Majority of the participants (54.4%) were impartial $(\chi^2 = 121.6, P \leq 0.001)$.

Table 13. Effective Implementation and Utilization of ETRS

Effective Implementation of ETRs	**SD**	**D**	**N**	**A**	**SA**	χ^2	**P>** χ^2
The tax policy and reforms on ETR for online VAT returns submission have been effectively implemented	15.19	7.59	23.42	38.61	15.19	44.1	<.0001
The SMEs are empowered on the tax laws, procedures, compliance requirements and penalties	15.19	7.59	7.59	46.2	23.42	81.3	<.0001
The installed ETRs are efficient and have enhanced online transmission of VAT returns on time	7.59	7.59	15.19	62.03	7.59	177.8	<.0001
There are minimal breakdowns, errors and issues being handled for ETRs being used by SMEs	22.78	22.78	31.01	7.59	15.82	24.3	<.0001
There is reduced corruption and improved controls on the administration of VAT refund systems	15.19	23.42	38.61	15.19	7.59	44.1	<.0001
There are minimal processes of verification, approval and validation of compliance processes hence few loopholes for tax evasion	15.19	15.19	54.43	7.59	7.59	121.6	<.0001

The study further asked the participants to indicate challenges facing effective implementation and utilization of ETRs among the SMEs in Nakuru town. From the analysis of the responses, majority were of the opinion that KRA has to focus on selling the perceived usefulness of ETRs to SMEs, provide managerial support in the utilization of ETRs, ensure that ETR machines are easily compatible with computers at the SME premises, ensure that ETRs are easier to adopt and use.

Inferential Analysis

Correlation Analysis

In this section, the study sought to investigate the correlation between the independent variables (compliance cost, training on ETR, Tax compliance level and perceptions to tax compliance) and the dependent variable (effective implementation and utilization of ETRs). A multiple correlation analysis was conducted as shown in Table 14.

Table 14. Multiple Correlations

		Compliance Cost	Training	Compliance Level	Perception	Effective Implementation
Compliance Cost	Pearson Correlation	1	0.778	0.769	0.837	0.769
	Sig. (2-tailed)		<.0001	<.0001	<.0001	<.0001
	N		158	158	158	158
Training	Pearson Correlation	0.778	1	0.665	0.699	0.761
	Sig. (2-tailed)	<.0001		<.0001	<.0001	<.0001
	N	158		158	158	158
Compliance Level	Pearson Correlation	0.769	0.655	1	0.692	0.755
	Sig. (2-tailed)	<.0001	<.0001		<.0001	<.0001
	N	158	158		158	158
Perception	Pearson Correlation	0.837	0.699	0.692	1	0.824
	Sig. (2-tailed)	<.0001	<.0001	<.0001		<.0001
	N	158	158	158		158
Effective Implementation	Pearson Correlation	0.769	0.761	0.755	0.824	1
	Sig. (2-tailed)	<.0001	<.0001	<.0001	<.0001	
	N	158	158	158	158	

Correlation between Compliance Cost and Effective Implementation of ETRs

The researcher conducted a correlation analysis to investigate the nature of the relationship between procurement procedures and tendering participation in Table 14. From the correlation analysis results, a very strong and significant positive correlation ($r = 0.769$, $P<.0001$) exist between compliance cost and effective implementation and utilization of ETRs. The p-value is less than 0.05 ($P<0.000$) implying that the relationship between compliance cost and effective implementation and utilization of ETRs is statistically significant. The findings are consistent with those of Weichenrieder (2007) who posited that the taxation of SMEs faces several major policy challenges that include compliance costs of taxation, revenue cost, tax evasion, incorporation and definition of SMEs. Therefore based on the significance rule, the study rejected the null hypothesis and concludes that compliance cost has a statically significant influence on effective implementation and utilization of ETRs.

Correlation between Training on ETRs and Effective Implementation of ETRs

The researcher in addition sought to determine the relationship between training on ETR and effective implementation and utilization of ETRs. From the correlation analysis results in Table 14, a very strong significant positive relationship (r=0.761, P<.0001) exist between training on ETR and effective implementation and utilization of ETRs. The p-value was less than 0.05 (P<0.000) and this means that the correlation between training on ETR and effective implementation and utilization of ETRs is statistically significant. Therefore based on the significance rule, the study rejected the null hypothesis and concludes that training on ETRs has a statically significant influence on effective implementation and utilization of ETRs. The findings are congruent to those of Eriksen and Fallan (2000) who posited that the level of education or training received by taxpayers is an important factor that contributes to the understanding about taxation especially regarding the laws and regulations of taxation.

Correlation between Tax Compliance Level and Effective Implementation of ETRs

The study further wanted to establish the relationship between tax compliance level and effective implementation and utilization of ETRs. The results in Table 14 established the existence of a very strong significant and positive relationship (r = 0.755, P=<.0001) between tax compliance level and effective implementation and utilization of ETRs. The p-value <.0001 was less than the conventional value of 0.05. This implies that the relationship between tax compliance level and effective implementation and utilization of ETRs is statistically significant. Therefore, the study rejected the null hypothesis and concludes that tax compliance level has a statistically significant influence on effective implementation and utilization of ETRs. According to Ritsema et al., (2003), tax compliance decision depends on income level of an individual taxpayer, inspection (audit) by tax authorities and deterrent measures put in place.

Correlation between Perceptions to Tax Compliance and Effective Implementation of ETRs

The study further wanted to establish the correlation between perceptions to tax compliance and effective implementation and utilization of ETRs. The results in Table 14 established the existence of a very strong significant and positive relationship (r = 0.824, P=<.0001) between perceptions to tax compliance and effective implementation and utilization of ETRs. The p-value (significance level) of <.0001 was less than the conventional value of 0.05. This implies that the correlation between perceptions to tax compliance and effective implementation and utilization of ETRs was statistically significant. Therefore, the study rejected the null hypothesis and concluded that perceptions to tax compliance had a statistically significant influence on effective implementation and utilization of ETRs. The findings support those of Torgler (2005) that people who knew or had heard about tax avoidance appear to have lower tax morale than others.

Correlation between the Independent Variables

The study further sought to determine the nature of the relationships between the independent variables. From the results of the correlation analysis, the study established that there were very significant correlations between compliance cost, training, tax compliance level and perceptions towards tax compliance (r=0.778, 0.769 and 0.837). Similarly, the study found a very significant relationship between training, tax compliance level and perceptions to tax (r=0.665, 0.699 and 0.761). Further, the study established that there were significant correlations between tax compliance level and perceptions to tax compliance level (r=0.692). The findings imply that all the four independent variables were interrelated and had combined influence on effective implementation and utilization of ETRs.

Regression Analysis

The researcher conducted a multiple regression analysis to assess the factors influencing effective implementation and utilization of ETRs by SMEs in Nakuru town. Table 15 shows that the four predictor variables (Compliance Cost, Training on ETR, Tax compliance level and Perceptions towards tax compliance) accounted for 77.35% of the total variation in effective implementation and utilization of ETRs by SMEs in Nakuru town because the 'R square' value was 0.7735. Therefore, this study did not assess factors constituting 22.65% which influence effective implementation and utilization of ETRs by SMEs in Nakuru town.

Table 15. Model Summary

Model	R	R Square	Adjusted R Square	MSE	Dependent Mean	Coeff of Var
1	.8828[a]	.7793	.7735	2.2114	18.652	11.856

a. Predictors: (Constant), Compliance Cost, Training on ETR, Tax compliance level
b. and Perceptions towards tax compliance

b. Dependent Variable: Effective implementation and utilization of ETRs

Analysis of Variance (ANOVA) for Regression Model

The analysis of variance of the regression model was conducted to test the significance of the relationship between the independent and dependent variables. The results in Table 16 show that the P-value is 0.001. The results further showed that the significance probability value of P=0.0001 of the regression model was less than the level of significance pegged at 0.05 thus indicating that the regression model was significant. Further, the *F* statistic (4, 153) at 95% level of significance = 2.46 was less than the *F* calculated = 135.055 and therefore the model was significant.

Table 16. Analysis of Variance for Regression Model

Source		**Sum of Squares**	**df**	**Mean Square**	**F**	**Pr>F**
1	Model	2641.672	4	660.418	135.055	<.0001[a]
	Error	748.183	153	4.890		
	Corrected Total	3389.855	157			

a. Predictors: (Constant), Compliance Cost, Training on ETR, Tax compliance level and Perceptions towards tax compliance

b. Dependent Variable: Effective implementation and utilization of ETRs

Regressions Coefficients

The researcher further conducted a multiple regression analysis in order to determine the strength of the relationship between independent and dependent variables as illustrated in Table 17.

$$\mathbf{Y = \propto + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4}$$

Where, X_1 represents compliance cost, X_2 represents training on ETR, X_3 represents Tax compliance level and X_4 represents perceptions to tax compliance.

$$\mathbf{Y} = -0.09951 + (-0.14263\mathbf{X_1}) + 0.35156\mathbf{X_2} + 0.28035\mathbf{X_3} + 0.50453\mathbf{X_4}$$

From the multiple regression analysis results, parameter estimates were obtained and used to explain the regression equation. Taking all the factors into account and at zero, the constant was -0.09951. The p-value was 0.000 implying that Compliance Cost, Training on ETR, Tax compliance level and Perception towards tax compliance had a significant influence on Effective implementation and utilization of ETRs. Taking all other independent variables at zero, a unit increase in compliance cost leads to a 0.143 units increase in effective implementation and utilization of ETRs. This finding was consistent to those of Shome (2004) that compliance costs for tax payment are quite high especially for SMEs, which lack knowledge and skills of the tax laws and regulation. This therefore makes compliance cost negatively impact on the effective implementation and utilization of ETRs. Further, a unit increase in training on ETRs leads to

0.352 units increase in effective implementation and utilization of ETRs; a unit increase in tax compliance level leads to 0.280 units increase in effective implementation and utilization of ETRs. This finding was congruent to those of Ritsema et al., (2003) that tax compliance decision depends on income level of an individual taxpayer, inspection (audit) by tax authorities and deterrent measures put in place. A unit increase in perception to tax compliance leads to 0.505 units increase in effective implementation and utilization of ETRs. Therefore, perception to tax compliance had the greatest influence on effective implementation and utilization of ETRs in Nakuru town.

Table 17. Parameter Estimates

Variable		DF	Parameter Estimate	Standard Error	t-Value	Pr > |t|	VIF
1	(Constant)	1	-0.09951	0.84706	-0.12	0.9066	0
	Compliance cost	1	-0.14263	0.1092	-1.31	0.1935	5.12104
	Training on ETR	1	0.35156	0.07222	4.87	<.0001	2.64069
	Tax compliance level	1	0.28035	0.05832	4.81	<.0001	2.54895
	Perceptions to tax compliance	1	0.50453	0.07031	7.18	<.0001	3.4477

The study calculated VIF values (Variance inflation factors) to measure how much the variance (multicollinearity or correlation between predictors) of the estimated regression coefficients were inflated as compared to when the predictor variables are not linearly related. All the VIF values for the four variables ranged from 1 to 5. This implied that they were moderately correlated with the independent variable (effective implementation and utilization of ETRs.

SUMMARY OF FINDINGS

Influence of Compliance Cost on Effective Implementation and Utilization of ETRs

The study established that SMEs found ETR cumbersome especially when dealing with a small number of transactions. Moreover, the study found that compliance costs for ETR had been raised over 35% of the registered VAT tax payers. Correspondingly, the study found out that the participants were undecided on whether online submission of tax returns by SMEs has made it possible to eliminate costs of manual filing of returns. The study further determined that the cost of acquiring an ETR and costs of installation are not affordable by all SMEs. Furthermore, the study established that recurrent costs of repair do not necessarily discourage SMEs from acquiring and using ETRs. The study also established that SMEs face challenges on ETR compliance costs because ETRs are expensive, there are high costs of installations, insufficient technical skills to manage ETRs, acquisition costs are paid in installments, high cost of buying ETR compatible computers and that some SMEs have point of sale software making it expensive to change and adopt to ETRs.

Influence of Training on Effective Implementation and Utilization of ETRs

In addition, the study established that electronic tax registers require continuous improvement of skills, systems and processes to realize their objectives. Further, it was established that ETR require extensive training and capacity building of SMEs to enhance efficiency. Similarly, training SMEs on tax laws, procedures and responsibilities lowers non-compliance levels. It was also established that training SMEs on ETR and tax compliance to instill public confidence in the taxation system had not been adequately done. The findings revealed that tax administration authorities in Kenya have not prioritized training of SMEs to enhance revenue collection. The findings revealed that SMEs are not adequately trained on ETR technical skills to able to resolve the issues on time instead of relying on tax officials for repairs. The study further found that training on ETR can be enhanced to benefit more SMEs in submitting tax returns through provision of training on servicing of ETRs and utilization of ETRs by KRA to foster compliance levels.

Influence of Tax Compliance Level on Effective Implementation and Utilization of ETRs

The findings established that SMEs meet their tax obligations by filing VAT returns according to the tax law. Further, the findings revealed that non-registered SMEs attracted heavy penalties and fines for failing to adhere to the tax laws. As well, the findings determined that VAT tax compliance by SMEs depended on income levels and inspections by KRA officials. It was also established that VAT compliance level is affected by lack of information, skills and fear/uncertainty. Moreover, bureaucratic and improper SME registration enhances tax non-compliance. Also, the findings revealed that lack of skills in proper record keeping by SMEs contributes to non-compliance. Similarly, the study established that SMEs fail to comply with ETR adoption because they are not equipped with adequate skills on ETR use, uncertainty on the security of the system for VAT returns submission, i-tax system was not user friendly, high penalties and fines imposed due to failure to comply and that tax laws needs to be reviewed to encourage SMEs to comply.

Influence of Perceptions to Tax Compliance on Effective Implementation and Utilization of ETRs

The study findings revealed that closely owned and managed SMEs are able to file VAT tax returns. The findings further showed that the overall integrity of any tax system is dependent upon the public perceptions of its enforcement efforts. As well, the study findings determined that VAT tax revenue collection did not increase with greater tax law enforcement. Furthermore, the study established that tax morale and compliance level is influenced by fairness of the tax administration system. The failure to comply with VAT tax is not adequately associated with the ability to pay and trust of the tax administration system. Moreover, compliance to VAT tax does not always increase when the government effectively provides public goods and services to its citizens. Moreover, the study found that KRA can reduce negative attitudes or perception towards VAT tax compliance levels by the SMEs through getting a buy-in from SMEs, providing skills training on ETR, use of other SMEs as role models to others and reinforcing tax laws.

CONCLUSIONS

The study concluded that dealing with a small number of transactions makes ETR cumbersome for SMEs. Moreover, the study concludes that ETR compliance costs have increased for over 35% of the registered VAT tax payers. The study also concludes that online VAT submission has eliminated the costs of manual filing. Further, the study concludes that some SMEs are able to acquire and afford ETR installation costs. Furthermore, the study concludes that recurrent repair costs have not discouraged SMEs from acquiring and using ETRs. The study also concludes that SMEs face challenges on ETR compliance costs because ETRs are expensive, high costs of installations, insufficient technical skills to manage ETRs, acquisition costs are paid in installments, high cost of buying ETR compatible computers and that some SMEs have point of sale software which make it expensive to migrate to ETR.

The study also concluded that electronic tax registers require continuous improvement of skills, systems and processes to realize their objectives. Further, the study concluded that in order to achieve ETR efficiency, extensive training and capacity building of SMEs is paramount. Similarly, the study concluded that training SMEs on tax laws, procedures and responsibilities lowers non-compliance levels. Furthermore, the study concludes that training SMEs on ETR and tax compliance fosters public confidence in the taxation system. The study also concludes that tax administration authorities in Kenya have not prioritized training of SMEs to enhance revenue collection. The SMEs are not adequately trained on ETR technical skills to able to resolve the issues on time and repairs. The study further concluded that trainings on ETR can be enhanced to benefit more SMEs in submitting tax returns through provision of training on servicing of ETRs and utilization of ETRs by KRA to foster compliance levels.

The study additionally concluded that SMEs have been able to meet their legal tax obligations by filing VAT returns. Moreover, the study concluded that non-registered SMEs attract heavy penalties and fines for failing to adhere to the tax laws. As well, the study concluded that VAT tax compliance by SMEs requires more than income levels and inspections by KRA officials. The study moreover concluded that inadequate information, skills, proper record keeping and risk affect VAT compliance level. Moreover, the study concluded that bureaucracy and improper SME registration enhances tax non-compliance. Similarly, the study concludes that SMEs fail to comply with ETR adoption because they are not equipped with adequate skills on ETR use, uncertainty on the security of the system for VAT returns submission, i-tax system is not user friendly, high penalties and fines imposed due to failure to comply and that tax laws needs to be reviewed to encourage SMEs to comply.

The study added that proper management of SMEs ensures they are able to file VAT tax returns. The study also concludes that public perceptions on the overall integrity of any tax system affect its enforcement efforts. As well, the study concludes that greater tax law enforcement leads to increased VAT tax revenue collection. Furthermore, tax morale and compliance level are influenced by fairness of the tax administration system. The trust of the tax administration system enhances compliance with VAT tax. Moreover, compliance to VAT tax is not only premised on government provision of public goods and services. Moreover, the study found that KRA can reduce negative attitudes or perception towards VAT tax compliance levels by the SMEs through getting a buy-in from SMEs, providing skills training on ETR, use of other SMEs as role models to others and reinforcing tax laws.

RECOMMENDATIONS

The study recommends that a mechanism should be developed to enhance the handling of small transactions using ETRs by SMEs. Moreover, the government should review the compliance costs to ensure more SMEs access VAT tax services. Filing of VAT returns online should be simplified to improve efficiency. ETR acquiring and installation costs should be reviewed through consultation with SMEs to encourage more compliance to VAT tax. Furthermore, recurrent costs especially on repair should be minimized to encourage more SMEs to acquire ETRs. The study also recommends that the government should provide free and cheaper ETRs to SMEs, installation costs should be drastically reduced to support more SMEs to submit their VAT returns online and KRA should provide sufficient technical skills on management of ETRs. There should be regular SME training and capacity building on ETR technical skills, systems and processes. SMEs should be trained on tax laws, procedures and responsibilities to enhance compliance levels. The government should strive to build public confidence in the taxation systems. Training of SMEs should be geared towards tax compliance and increased revenue collection. Trainings on ETR should be enhanced to benefit more SMEs in submitting tax returns through provision of training on servicing of ETRs and utilization of ETRs by KRA to foster compliance levels.

The study further recommends that filing of VAT returns should be made easier for SMEs to comply. Further, non-registered SMEs should be encouraged to adhere to the tax laws and avoid penalties. As well, KRA should enforce SME VAT tax compliance in order to widen their revenue collection. The SMEs should be given opportunities to access adequate information, skills, proper record keeping and risk assessment to effectively enhance their compliance level. Moreover, the government should ensure there are plans in place to minimize bureaucracy and improper SME registration. SMEs should be equipped with adequate skills on ETR use to build confidence that the system is secure and reliable for VAT returns submission. The design of the i-tax system or website should be reviewed to ensure its user friendly and the tax laws should be realigned to focus more on encourage as many SMEs as possible to comply with ETR adoption and submission of tax returns.

The study further recommends that SMEs should manage their VAT tax returns very well to avoid delays and penalties. The public perceptions on the overall integrity of any tax system should be carefully handled for enforcement efforts to succeed. As well, there should be greater tax law enforcement to increase VAT tax revenue collection. Furthermore, the fairness of the tax administration system should be built and improved upon to ensure the public understands the tax laws to foster compliance. Moreover, KRA should strive to mitigate negative attitudes or perception towards VAT tax compliance levels through getting a buy-in from SMEs, providing skills training on ETR, use of other SMEs as role models to others and reinforcing tax laws.

SCOPE FOR FURTHER STUDIES

The study suggests that further research should be conducted on the influence of access to information on effective implementation and utilization of electronic tax registers by SMEs in Kenya. Further, more research should be done to investigate the influence of perceptions towards ETR on tax evasion by SMEs.

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