

**EFFECT OF TECHNOLOGY ADOPTION ON TAX COMPLIANCE AMONG
SMALL AND MEDIUM ENTERPRISES IN ELDORET CENTRAL
BUSINESS DISTRICT (CBD), KENYA**

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DECLARATION

Declaration by the Candidate

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DEDICATION

This research thesis is dedicated to God for the strength, he gave me to carry on and my Husband, parents, my children, sisters and brother for their assistance and encouragement throughout the period of undertaking the research proposal and all my friends who participated and supported me.

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ABSTRACT

Tax compliance entails taxpayers' decision to comply with tax laws and regulations by paying tax timely and accurately. Tax compliance is an integral component of fiscal policy and administration in any economy and taxation influences the operations of the National Government and the grass roots. It is the fuel of every government as it is the main instrument through which government funding is ensured. Technology involves enormous opportunities for regulatory authorities on tax compliance to enforce the noncompliance by the SME. The main objective of this study was to examine the effect of technology adoption on tax compliance among small and medium enterprises in Eldoret CBD, Kenya. This study was guided by the following specific objectives; To determine the effect of perceived ease of use of technology on tax compliance, to examine the effect of ICT user skills on tax compliance, to investigate the extent to which perceived usefulness of technology affect tax compliance, to determine the effect of electronic tax filing system cost on tax compliance and to determine the effect of ICT infrastructure on tax compliance by small and medium enterprises in Eldoret CBD. This study is anchored on the Technology Acceptance Model (TAM), Diffusion of Innovation (DOI) theory and Unified Theory of Acceptance and use of Technology. The study area was Eldoret CBD, Uasin Gishu County. This study adopted an explanatory research design. The study yielded quantitative research. The target population for this study comprised of 320 owners/managers from the 320 small and medium enterprises (SMEs) operating within Eldoret central business district in Uasin Gishu County. The sample size for this study was 178 SMEs. Primary data was collected using questionnaires. Data was analyzed using descriptive and inferential statistics. Descriptive statistics was analyzed through measures of central tendency such as mean and standard deviation while inferential statistics such as Pearson Correlation Coefficients and Multiple regression models were used. The regression analysis results indicated that perceived ease of use of technology ($\beta_1 = 0.222$, $P = 0.000 < 0.05$), perceived usefulness ($\beta_2 = 0.156$, $P = 0.000 < 0.05$) and ICT infrastructure $\beta_5 = 0.209$, $P = 0.000$ had a positive impact on tax compliance while ICT user skills and electronic tax filing system cost were not significant. The study concludes that a combination of technology adoption aspects including perceived ease of technology, perceived usefulness and ICT infrastructure are necessary for enhancing tax compliance in the SMEs, whereas ICT skills and electronic tax filing system cost do not influence tax compliance in the SMEs. The study recommends that adequate measures related to technology should be availed to the SMEs in Eldoret CBD and the country at large and also the need by the government to develop policies that guide on technology adoption in relation to tax compliance and related procedures.

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OPERATIONAL DEFINITION OF TERMS

Electronic tax system: An electronic tax system is referring to an online platform that enables the taxpayer access tax services through the internet. Such services include registration for a tax identification number, filing of returns and registration of a payment and compliance certificate application.

ICT support services: refer to technologies that provide easy access to information through telecommunications.

ICT usage: Refers to an individual's self-reported subjective assessment about rate of usage of various ICT applications. This study applies terms '*ICT usage*' and '*ICT use*' interchangeably to indicate SMEs' ICT usage behavior

ICT: Refers to information and communications technology which may range from a simple digital phone or computer operation to highly sophisticated computer driven and Internet-driven automated equipment. In this study, ICT is used to refer to the computer and computer-driven Internet and networking technologies which include various levels of ICT applications.

Infrastructure investment: Infrastructure investment refers to investing in SMEs entire collection of hardware, software, networks, facilities and support information technology services.

Perceived ease of use of technology: This is a key determinant in the use of technology as perceived by users and customers in the organization. The technology or innovation is much adopted by users when they consider the use of technology as easier

Perceived usefulness of technology: refer to the usefulness of technology to the users. It is the perceived benefit benefits expected from the system by making use of it.

Small and Medium Enterprises: is commonly referred to as SMEs and are defined according to number of employees, revenues and assets of the company. In Kenya they are defined as businesses that have between one and 99 employees.

SME ICT staff capabilities: SME ICT capability refers to their ability to make the most of the digital technologies available to them, adapting to new ways of doing things as technologies evolve while reducing the risk to themselves and others in a digital environment.

Tax: is income which is paid to the government in order to fulfill the need of the public or it is the revenue that government receives as a percentage of each individual's income.

Tax Compliance: refers to taxpayers' decision to comply with tax laws and regulations by paying tax timely and accurately.

Technology Adoption: is a term that refers to the acceptance, integration, and use of new technology.

ABBREVIATIONS AND ACRONYMS

CBD	Central Business District
EC	Electronic Commerce
EDI	Electronic Data Interchange
EFT	Electronic Funds Transfer
ETR	Electronic Tax Register
ICT	Information Communication Technology
IMF	International Monetary Fund
IT	Information Technology
ITMS	Integrated Tax Management System
ITR	Integrated Tax Register
E-tax	Electronic returns
IVR	Interactive Voice Response
KRA	Kenya Revenue Authority
OECD	Organization for Economic Co-operation and Development
POS	Point of Sale
SME	Small and Medium Enterprise
SPSS	Statistical Package for the Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Tax compliance refers to taxpayer's decision to conform to tax laws and regulations by paying tax timely and accurately. Tax compliance is an essential component of fiscal policy and administration in any economy and taxation influences the operations of the National Government and the grass roots. Taxation is considered as the fuel of each government that maintains instruments by which the government funding is assured (Komolo, 2014).

According to Martins & Picoto (2020), technology adoption and tax compliance is a driver for effecting competencies amongst the small and medium-sized enterprises (SMEs). The adoption of information systems by SMEs leads to the attainment of new competencies and comparative advantages. In some instances, the decision to adopt technology is as a result of the legal obligations that companies must comply with. The finding from the study by Martins & Picoto (2020), found out that SMEs and MSMEs resolve to adopt technology as result of their obligations for tax compliance and in certain jurisdiction, it is a mandatory requirement for filing returns. Nevertheless, while some companies resolve to adopt basic technology simply to comply with the transmission of documents, others resolved to execute more complex systems to satisfy broader company needs.

Martins & Picoto (2020), further established that due to time constraints, the cost of adoption of technology, cost of installation of the systems to facilitate compliance and the sensitivity of the SMEs in adopting technology by SMEs vary because of the

different requirements by the government regulator on tax compliance and the effective changes in the law.

As stated by OECD (2005), SMEs are non-subsidary, independent firms which employ less than a given number of employees. The definition of SMEs however varies across countries. Most jurisdiction describe SMEs with regard to number of employees. The utmost frequent upper limit describing an SME is 250 employees in the European Union. Although, some countries set the limit at 200 employees, whereas the United States considers SMEs to include firms with less than 500 employees. In European Union, total Community acts and funding programs in addition to the field of State aid where SMEs can be granted higher intensity of national and regional aid than big companies are considered as SMEs. This is a new description which provides for an upsurge in the financial ceilings with the turnover of medium-sized enterprises is 50-249 employees but must not surpass 50 million EUR and those of small enterprises should have 10-49 employees but should not exceed EUR 10 million.

The small and medium-sized enterprises (SMEs), is well-defined by the government of Kenya (GOK, 2019) as businesses that involve 1-99 employees, covering a range of establishments in nearly all segments of the economy; they function formally or informally, seasonally or all-year round and are situated in numerous areas including markets, streets, households or mobile. They make a vast input on several fronts nurturing innovation, formation of new markets and consumers, a higher tax base, creation of employment and in effect, alleviation of poverty.

According to Kimathi (2020), on the entrepreneurial mind-set and performance of Small and Medium Enterprises in Kenya, study established the worth of SMEs output as projected at Sh. 3,371.7 billion contrary to a national output of 9,971.4 billion

Kenyan shillings demonstrating a contribution of 33.8% in 2019. It is an incredible increase from 13% recorded in 1993. Kimathi (2020), basing his findings on the data from Kenya National Bureau of Statistics, affirmed that 49.2% of the certified SMEs had a monthly turnover of not more than 50,000 Kenyan shillings, whereas 35.7% recorded a monthly turnover of between 50,000-1,000,000 Kenyan shillings. The study found out from the data that merely 0.2% of these businesses had a monthly turnover more than 1 million Kenyan shillings. This study concluded that the data is not conclusive as some SMEs are not operating formally. Nevertheless, in spite of their huge contribution to the economy, Kenya's SMEs face numerous challenges that continuously hinder their growth. The SMEs are stalled by insufficient capital, restricted market access, poor infrastructure, inadequate knowledge as well as skills and prompt changes in technology especially on tax compliance in this study.

In the USA according to Night & Bananuka (2019), technology adoption on tax compliance commonly referred to as electronic tax systems started for the first time in 1986, where the Internal Revenue Service's initiated offering tax return e-filing for tax refunds only. This electronic return (e-tax) system advanced tax compliance as it facilitated quicker accessibility to tax services without a physical visit to the tax authority sites. Night & Bananuka (2019), quoting Haryani et al. (2015), reiterated that this system is user-friendly, safe, reliable, offers easy payment method, offers a diversity of services thus boosts voluntary tax compliance. However just like in other countries, SMEs are faced with several challenges in context of taxation. The study discovered that tax compliance levels amongst the SMEs in USA is scarce despite the country being perceived to be a developed nation.

According to Sanusi (2018), the effects of technology adoption on tax compliance among small and medium enterprises in USA has in many occasion leads to non-

compliance. Consequently, this has resulted in into tax evasion or tax fraud. According to this study this tax fraud will create a huge tax gap in the country and this will always be an area of concern for the government and policy makers.

According to Sanusi (2018), the consequences of technology adoption on tax compliance amongst small and medium enterprises in USA has in many occasion leads to non-compliance. Consequently, this has resulted in tax evasion or tax fraud. According to this study this tax fraud will create a huge tax gap in the country and this will continually remain an area of concern for the government and policy makers.

In Europe, the 25 million SMEs are perceived as the pillar of the EU economy. The SMEs have employed about a hundred million individuals, representing more than half of Europe's GDP and perform a vital role in adding value in each sector of the economy. As stated by Union (2014), SMEs come up with innovative solutions to challenges identical to climate change, resource efficiency and social cohesion; and aid extend this innovation all over Europe's regions. Thus, they are central to the EU's identical transformation to a sustainable and digital economy and essentially vital to Europe's competitiveness and prosperity, economic and technological sovereignty, and resilience to external shocks. Intrinsically, they are a core part of the accomplishment of the EU's industrialized plan.

According to Alegre et al (2013), adoption of Advanced Technologies by SMEs in Europe is viewed as a precondition for the modernization of the European industry and the long-term creation of growth and employments in the European Union. Various European companies and SMEs lack enough capabilities to adopt Advanced Technologies as they lack adequate knowledge on it, human resources, organizational and administrative capability. Advanced Technologies ecosystem is necessary for the

supports of building of such capabilities amongst SMEs. This study presented an overview of functions that technology centres carries out regarding SMEs in addition to the wants of these firms with regards to technology centres. The study concluded that SMEs have complications in gaining access to technology centres as a result of restricted human resources, financial capabilities and or inadequate knowledge. Though, the needs differ subject to the type of SME.

Within Eastern Europe, SMEs occupy a strategic position because they are key drivers of innovation, economic stabilization, and job opportunities. Adoption of technology on patterns of e-business practices by SMEs in four Eastern European countries of Bulgaria, Poland, Romania, Slovenia as well as Cyprus is key to the business. The adoption of such technology is also a requirement by the EU for businesses to comply with tax returns (Berger and Dore, 1996; Castells, 2000).

In England, According to Slemrod (2016), UK has come to the forefront in driving momentum aimed at minimizing cases of income tax evasion and ongoing crackdown to tax avoidance, tax evasion and correcting the imbalance in the tax system via policy formulation and implementation. Indeed, accomplishing great levels of voluntary tax compliance and retaining high score of acquiescence requires adoption of technology and this is the main concern to financial policy makers in UK. Regardless of the form and nature of any nations' economy, the objective of taxation remains uncontested for purpose of raising revenue to finance government projects. To achieve this, the tax regimes much assess the tax compliance obstacles encountered by SME's and acknowledged the role that they play in the economy. This study found out that the tax administration process is being subjected to SMEs which becomes a stumbling block to the SME's growth, decision to adopt technology and the government must therefore

consider reducing the compliance requirement by lessening the number of tax heads and helping SMEs administer taxes in an effective manner.

In Asia, these services were executed by the Inland Revenue Authority in Malaysia in 2009. Within Malaysia, the Inland Revenue Board (IRB) introduced the electronic filling of the returns (e filing) (Razak, 2009). E-filing in Malaysia consisted of four simple stages: i) the enrollment and verification of the digital signature, the keying in of the gross earnings, relief and deductions before the system automatically computes the tax amount due. IRB receives the submission electronically and the verified tax form sent by e-mail back to the taxpayer (Razak, 2009). According to the Razak (2009), the shortcomings faced as a result of use of e-filing in Malaysia comprised of these high-tech difficulties; standards, data integration, legacy maintenance, confidentiality and safety.

In Africa, these services were introduced in 2003 by the South African Revenue Services (SARS) with significant progresses in 2006. Within South Africa, the three methods of tax returns includes the manual returns, electronic filling of tax returns and electronic based form filing of tax returns. The manual tax returns comprise of filing the manual tax return forms from the South African Revenue Services (SARS) and returning the finalized forms to the authority. The electronic form filing encompasses filling the manual equivalent of the form electronically and printing the form for submission to the authority (Ibrahim, 2012).

The e-filing of the tax returns in South Africa entails the electronic filling in addition to the submission of tax returns. Numerous benefits have been noted in the South African context regarding online tax returns and it includes the prolonged period for submission of tax payers' returns which is up to January of the previous year in contrary

to October of a present year for the tax returns (Ferreira, 2008). Leading challenge of the e-filing of tax returns in South Africa comprised software necessities of the SARS program which used adobe acrobat 8 software. This software needed at least a Pentium 11 computer to function which was not extensively accessible in South Africa at that particular period of e-filing launch. The issue of broad online help menus was a hindrance along with the navigation of e-filing site (Lai & Choong, 2010).

In East Africa, states like Uganda, Rwanda and Kenya have adopted electronic tax system. However, tax environment is changing rapidly around the globe. Electronic tax system is a current way of tax authorities interconnecting with taxpayers. As stated by Simuyu & Jagongo (2019), there is an important affiliation in relation to the perception towards online tax filing in regards to the easiness and simplicity in filing in addition to safe system, thus improving tax compliance levels.

In Kenya, the initial method of online filing of tax returns was through the execution of the Integrated Tax Management System (ITMS) in 2013. The intention of this was to enable the online payments of Value Added Tax (VAT), Cooperate Tax amongst others. According to Gwaro et al (2016), the ITMS linked the Electronic Tax Registers (ETR) to facilitate simplification of the Value Added Tax affirmations. The ITMS allowed the taxpayers to carry out electronic filing. This was later phased out by Kenya Revenue Authority and substituted with the iTax system. ITax allowed taxpayers to carry out internet-based registration, filing, paying as well as status inquiries with actual time monitoring of the accounts.

According to Mutuku (2022), the effect of Itax System on VAT Compliance among Small and Medium Enterprises in Eldoret Town is as a result of non-availability of information, compliance costs and taxpayer attitude towards tax payments which are

perceived to have a direct effect on tax compliance. The study also found out that the practice of tax evasion still presents a serious threat to achieving this goal, and it continues to directly deny the Government its rightful revenue. This is due to the failure by MSMEs to fully declare the sales receipts of a business enterprise through keeping of parallel records is stealing of Government revenue. This means that the trader does not pay the right amount of Value Added Tax or Income Tax.

Gwaro et al (2016), further established that, in Kenya taxpayers preferred use of the old manual system than use of the electronic tax system. The taxpayers who view usage of electronic filing system as difficult to operate fails to adopt it thus affecting tax compliance. The findings from the study concluded that the adoption of an electronic tax system was determined by the perceived easy usage of the tax system, intensity of conduct and user contentment. This indicates that the taxpayers must be happy and motivated to use the electronic tax system, but the tax system should as well be easy to use.

According to Gwaro et al (2016), online tax registration permits tax authorities to issue taxpayers a uniform Tax Identification Number that applies regardless of whether a taxpayer is registering for Personal Tax, Corporate Tax or Value Added Tax. Since income tax and value added tax rates are punitive, most of the SMEs do not want to register as noncompliance will subject them to penalties.

Kenya's government has tried to incorporate the underground economy into tax net under the presumptive tax by initializing the Finance bill of 2007 executed in 2008. It was called the Turnover Tax (TOT). It is an easy tax on the gross income of every local individual whose turnover from business is not more than Kshs.5 million during any year of Income. Finance Act of 2007 was introduced TOT through provision of the

Income Tax Act, Cap 470, and it functioned from January 1st 2008. This is aimed at mobilizing revenue from the SMEs and improve their compliance (Income Tax Act, Cap 470).

According to Ouma (2019), on the effects of revenue of tax reforms, economic development and political atmosphere in Kenya, established that all taxpayers accepted all tax reforms. Modifications in all taxes were affected by the reforms because of GDP growth. Economic growth has positive substantial impact on all the categories of taxes and the Governments' efficiency as well has positive effect on indirect taxes and that even though government control of corruption effect on tax revenues is statistically insignificant. Turn over taxes (TOT) which is directly affecting the SMEs has however been unsuccessful in producing anticipated results and the reason for this is, SMEs in Kenya are fond of tax evasion because high number of SMEs dont want to register with KRA as most of them are informal businesses. This has resulted to noncompliance when it comes to filing their tax returns. The registered SMEs that tend to under declare their taxable income which does not represent their expenditures, thus decoding into minor tax burden.

As stated by Mutuku (2022), the increased adoption of technology by SMEs in Eldoret town has proved to be a challenge. This is because of the fact that such technology is computer based and majority of the SMEs shy off from adopting it. Due to this, iTax system by KRA still continue to post revenues short of the treasury target. Despite this study indicating that the SMEs in Eldoret town have adopted technology, the study failed to mention the effects such technology has on the SMEs in Eldoret town.

According to Sakhasia (2019), on the effect of electronic tax filing system on tax compliance by SMEs in Eldoret town established that in the year 2017, the Kenya

national treasury reported that KRA missed its year tax collection targets by over Kshs. 50 billion by collecting 1.365 trillion in the 2016/2017 financial year compared to the target of Kshs. 1.415 trillion. Despite the missing target, KRA has shown that revenue collection has significantly risen over the past five years due to use and adoption of electronic systems. This study accredited the SMEs in the North Rift region specifically in Eldoret among other regions. The study highlighted some challenges faced by SMEs in tax compliance. However, this study did point out whether the challenges are of technology adoption or other challenges. Therefore this study. There is also insufficient empirical research on tax compliance amongst SMEs tax payers in Eldoret town. It is against this background that this research was undertaken in order to find out the effect of technology adoption on tax compliance among small and medium enterprises in Uasin Gishu County- Kenya. The study also aimed at finding why there is noncompliance by the SMEs despite the Kenya Government through its tax collection agent (KRA) taking major steps aimed at maximizing revenue collection measures including the introduction of the self-assessment system. According to section 5 of the KRA act, Chapter 469, it is the role of KRA in ensuring that taxpayers and other parties understand their tax obligations under the tax laws. The taxpayers and other parties also have a role to play in meeting their obligations under the law. The success of ETR machines in Kenya was questioned during its initial stages of implementation. The existing literature on the influence of SME ICT staff capabilities is scarce and does not fully address its influence on tax compliance therefore this study (KRA Act, cap 469).

1.2 Statement of the Problem

The growth of any nation is subject to the capability of the government to function dependently on its own sources of revenue. Therefore, for an enhanced development in developing nations, proper management of sources of their income is essential.

According to Mutuku (2022), taxation is the major source of revenue for governments in the world including the Kenyan government. In order for the government to raise their revenue, they must have rules and regulations for doing so and also for ensuring compliance by all eligible tax payers. The Kenyan government according to this study found out that KRA has automated revenue collection system through the use of modern technologies. KRA has over time tried to ensure total tax compliance by SMEs and other businesses which saw the government moving from ITMS in 2014 to the current i-tax system. The itax is an online technology for tax registration, filing of tax returns and payment of taxes due from taxpayers. This was perceived to be adoption of technology.

The KRA subsequently make the e-filing compulsory. According to Sakhasia (2019), most of the SMEs in Eldoret town are yet to register for the online system and therefore KRA is yet to attain complete tax compliance from the SMEs in the North Rift region. Adoption of technology by the SMEs and all taxpayers in the country is viewed as a way in which the government regulator can achieve tax compliance. According to Lunani (2019), the adoption of itax system has influenced the adoption of technology by SMEs in Eldoret. This has necessitated the Kenya revenue authority to embark on its tax reform strategy in order to meet the desired standards and also to meet its annual target collections which has year in year out fallen below the target.

The adoption and application of electronic tax system has been of great significance to SMEs according to Lunani (2019), who further established that the itax system by KRA which is an online platform enables the taxpayer to easily access to services such as the registration for a personal identification number (PIN), filing of returns and application for compliance certificate. However, the adoption and uptake of technology by SMEs in Kenya according to Mwaura (2019), is a challenging affair because of lack of

technology uptake, poor business record keeping, low sales turnover, changes in form of business ownership and ignorance of taxation processes and computations accruing from transactions.

According to Muturi & Kiarie (2015), for any government to match in performance with the growth and expectations of its citizenry, it must dramatically increase its fiscal depth without incurring costly recurring overheads. Automated systems have been proven to be capable of introducing massive efficiencies to business processes that can result in increased revenue. Governments today are under an increasing pressure to improve the delivery of public services in cost-effective ways. This can only be achieved through tax collection. Failure of which means the government cannot function properly.

As stated by Kariuki et al (2017), SMEs are regarded as the vital drivers of economic and social development in Kenya and are mostly considered to be the important part in revenue generation to the government through taxation. The critical role of the SMEs taking active role in tax compliance is to be part of economic development and foster provision of public goods and services to enhance delivery of services. Despite all these studies mentioning of technology adoption on the tax compliance, little or nothing has been mentioned on the effect of technology adoption on tax compliance among small and medium enterprises in Eldoret Central Business (CBD - Kenya). Therefore this study delved into these issues in order to determine the impact of the perceived ease of use of technology on tax compliance by small as well as medium enterprises, the effect of ICT user skills on tax compliance and to investigate the extent to which perceived usefulness of technology affect tax compliance by small and medium enterprises in Eldoret Central Business (CBD – Kenya).

1.3 Objectives of the Study

1.3.1 General Objective

The main objective of the study was to examine the effect of technology adoption on tax compliance among small and medium enterprises in Eldoret Central Business (CBD) - Kenya.

1.3.2 Specific Objectives

In furtherance to the general objective, the study looked into the following connected specific objectives.

- i. To determine the effect of perceived ease of use of technology on tax compliance by small and medium enterprises in Eldoret Central Business (CBD - Kenya
- ii. To examine the effect of ICT user skills on tax compliance by small and medium enterprises in Eldoret Central Business (CBD - Kenya
- iii. To investigate the extent to which perceived usefulness of technology affect tax compliance by small and medium enterprises in Eldoret Central Business (CBD - Kenya
- iv. To determine the effect of electronic tax filing system cost on tax compliance by small and medium scale enterprises in Eldoret Central Business (CBD - Kenya
- v. To determine the effect of ICT infrastructure on tax compliance by small and medium enterprises in Eldoret Central Business (CBD – Kenya.

1.4 Hypotheses

In order to address the above research objectives, the study was guided by the following the following hypotheses:

Ho1: Perceived ease of use of technology does not significantly affect tax compliance among small and medium enterprises.

Ho2: ICT user skills do not significantly affect tax compliance among small and medium enterprises.

Ho3: Perceived usefulness of technology does not significantly affect tax compliance among small and medium enterprises.

Ho4: Tax filing system cost does not significantly affect tax compliance among small and medium enterprises.

Ho5: ICT infrastructure does not significantly affect tax compliance among small and medium enterprises.

1.5 Significance of the Study

1.5.1 To Policy Makers

This study will be significant to the policy makers in assessing the effects of iTAX system on MSMEs and therefore coming up with a mechanism of correcting these effects or taking up the corrective measures to counter any weaknesses identified which would result to high compliance by MSMEs.

1.5.2 The MSMEs

This study will be significant to the MSMEs in knowing the importance of making their returns to the government and also the factors influencing the automation of tax processes in Revenue collection among MSMEs and that the effects of automation in the long run will be positive.

1.5.3 Future Researchers

This study will be significant to future scholars as it will contribute to the existing literature on the study topic and hence it will be a valuable source of literature. The scholars can therefore use the information in this study to find gaps that can inform their future decisions.

1.6 Scope of the Study

Scope of a study is the features that describe the study boundaries and restrict the scope of the study (Simon & Goes, 2012). This research study had a delimited scope since the study depended mainly on data collected from a slight number of SMEs operating in Eldoret town in the central business district in Uasin Gishu County. The study targeted a population of 1785 SMEs owners primarily drawn from services (685) and manufacturing (1100). The study focused on their effect of technology adoption on tax compliance. The study was restricted to those businesses operating within the central business district of Eldoret town, in Uasin Gishu County- Kenya and was undertaken among small and medium enterprises. The study finding from interviewing owners and staffs from a few SMEs might not be adequate to comprehend the conduct of a bigger population of SMEs but it was presumed to be representative.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on reviewed literature in the previous studies, both the theoretical, empirical and conceptualization framework for the study. Moreover, this chapter presents the numerous theories guiding this study as well as the conceptual framework. This chapter has been subdivided into sub-sections under the following headings:

2.1 Concepts of the Study

2.1.1 Tax Compliance

Tax Compliance is taxpayers' decision to conform to tax laws as well as regulations by paying tax timely and accurately. It can also be defined as filing all essential tax returns at a suitable time and that returns correctly report tax liability in line with the tax law applicable at the time the return is filed (Comunale et al, 2019).

According to Nyandieka (2020), the scope of tax compliance consist of; reporting income as well as paying all taxes in line with the relevant laws, regulations and court decision. Tax compliance characteristically means, accurate reporting of the tax base, correct computation of the liability accurately, timely filing of the return as well as well-timed payment of the amounts owed. Those who do not abide by taxation laws deliberately or otherwise are considered as having committed a felony.

Gitonga, Kyalo & Maina (2015), tax non-compliance reduces tax collection and the tax performance within a country. The Kenyan government has implemented various strategies to bring businesses in the informal sector into the tax bracket. However, available data shows that tax collections from the informal sector are above average but on a declining trend. This study found out that the fines paid and tax filling expenses

associated with itax had significant effect on the levels of compliance by SMEs in Eldoret town.

According to Sakhasia (2019), evaluated the effect of cost of filling tax (fines and penalties) and seeming prospects for tax evasion on compliance levels and established that such costs and fines had negative effect on tax compliance levels among the SMEs.

According to Wanjagi & Ondabu (2019), the effects of online tax system on tax compliance among MSMEs was dependent on the tax payers' decision to use e-filing system in Kenya. The factors according to the study which influenced compliance was; skills needed to use e-filing system, the ICT resources needed and KRA preparedness towards large tax payers adoption of the e-filing technology. The study found that for e-filing to effectively take off in Kenya skills, infrastructure and a conducive business environment are needed.

2.1.2 Technology Adoption

This is described as acceptance, integration, and use of new technology. Technology Adoption refers to how people or business use technology in their operations. According to Azmi et al (2016), SMEs adopt technology in tax compliance based on their perceived improvement in the business, data precision, stepping up processes and decreasing clerical errors. Azmi et al (2016), further provides that SMEs with a positive attitude toward technological factors, which are perceived compatibility, complexity, and relative advantageous, are more ready adopt the technology. The variables used in the determination of adopting technology in tax compliance include; Compatibility, Complexity, Tax compliance costs, Coercive pressure and Regulatory pressure.

Azmi et al (2016), found out that perceived compatibility has an affirmative influence on SMEs' adoption of VAT-compliant accounting systems. If the SMEs tussle with

managing the system as well as incorporating it into their business processes and organizational culture, they will not adopt it as SMEs. It may only incorporate the systems into their financial reporting procedures, which can aid organizations attain benefits such as substantial cost savings, enhanced decision making, and transparency of financial information. Azmi et al (2016), further provides that the perceived coercive pressures have a positive influence on SMEs' adoption of technology in their tax compliance. In this study the regulatory pressure is an important factor in the SMEs adoption of technology. The KRA has initiated the adoption of technology in the filing of returns and so SMEs have to follow suit.

2.1.3 Perceived Usefulness

According to Nyandieka (2020), perceived usefulness refers to as a prospective user's which is subjective or with the probability of adopting a particular technology to improve its operations. The adoption of the ICT by KRA in accessing services has influenced the SMEs belief in the adoption of technology to enhance the access of services. Amongst these perceptions include convenience of the SMEs since they have ability to file the tax returns at home or cybercafés and eradicates or decreases errors related to manual filing as the system auto checks the application.

The effect of iTax system on tax compliance levels in Kenya can be measured through the perception of the tax payers (Kabaka, 2020). Governments require all individuals in respective jurisdiction to pay taxes as laid out in the Tax laws of each country. It is responsibility of each person to be tax compliant for him/her to be considered as being tax compliant by the authorities mandated to enforce given tax laws. People who do not declare their taxable activities and end up failing to pay the required taxes are considered to be non-compliant. There is a relationship in line with this study between

taxpayer registration and compliance. The study established that the policy makers must ensure that they create policies on assessment of the possible implication of registration on tax revenues so as to enhance compliance.

2.1.4 Perceived Ease of Use

According to Okello (2018), the taxpayers' perception towards online filing, their technical skills of filing tax returns as well as tax compliance was positive. The study was based on a descriptive survey research design and the information required for the study collected from primary sources using the self-administered questionnaire and interview schedule. The target population was 1,800 SMEs and a total sample size of 316 SMEs was selected using a simple random sampling technique. The study findings indicated that online tax filing do affect tax compliance level among MSMEs as far as perception on online tax filing and technical skills of filing tax returns were concerned. According to Nyandieka (2020), the perceived ease of use means the degree to which a possible adopter understands the adoption of technology and its usage comparatively free of effort. It indicates how easy the SMEs maneuver or use new technology in filing their tax returns. According to Gwaro et al (2016), the convenience of the taxpayers to file tax returns at their residence or cybercafés makes them to adopt the technology easily. In Kenya, the iTax system has allowed the taxpayer to carry out internet-based registration, filing, paying and status inquiries in addition to the timely monitoring of the accounts. This has contributed to the adoption of the technology by SMEs.

According to Kabaka (2019), taxation has three principal aims; regulation of the economy and economic activities, raising of revenue for the government and controlling of income and employment. The government should ensure that the process of paying the taxes must be easy for the tax payers and that the tax payer's perception must be positive. Taxes no matter the type and how there are being administered bear

effects on payer. Effects of taxation are the modifications in the economy consequent upon tax imposition.

According to Olonde (2019), previously, taxpayers filed their returns manually. This led to a lot of inconveniences to both taxpayers and the authority with some of the filings getting lost in the process. With the adoption of the iTax system of returns, things have become easier for taxpayers in submitting their tax returns and other related transactions online. Incentives under iTax include enhanced customer service, improvement in tax administration transparency, improved business processes and efficiency, reduced cost in tax administration, and increased level of tax compliance which eventually leads to increased revenue collection.

According to Munyoro (2017), VAT registration using iTax affects VAT compliance. The study found out that majority of taxpayers had registered as taxpayers since the introduction of iTax. Registered iTax businesses cited less cost, simplicity and time required as benefits of filing VAT returns online. The study concluded that registration of taxpayers using iTax enhances revenue collection by KRA and reduces possible avenues for tax evasion.

2.1.5 Perceived Effects in Adopting Technology

Azmi (2016) defined perceived effects as taxpayer's insight on the reliability of the systems functionality and control of their individual data information in online environment. Their study also describe effects as the apprehensions over the safety measure of several types of data that are collected in the course of taxpayers' interaction with the e-filing system as a result of concerns on third parties gaining access to their personal information.

According to Lunani (2019), tax authorities all over the world have chosen iTax system to interact with taxpaying the public in tax collection, administration and compliance settings. According to Lunani (2019), there is an increase in attention in developed and developing countries in the use of technology to improve the efficiency of tax administration, increase taxpayer services, and improve tax compliance. Now about one out of every five SMEs is filing returns electronically.

These studies reported that tax policies can be formulated to enhance voluntary compliance and growth of SMEs indirectly. However, there exists little empirical literature on how technology adoption measures undertaken contribute to compliances among SMEs. Thus, much has not been assessed from the perspective of the tax compliance among SMEs. This gap therefore needs to be filled. Nonetheless, the study will fill the gap by evaluating the technology adoption aspects which affect tax compliance of SMEs that are important to integrate missing literatures. This is the knowledge gap that this study aim to fill. The study will hence examine the effects of technology adoption on tax compliance for SMEs operating in Uasin Gishu County.

2.2 Theoretical Framework

This study was guided by three theories: The Diffusion of innovations theory, The Unified theory of Acceptance and use of Technology and Theory of Technology Acceptance Model.

2.2.1. Diffusion of Innovations (DOI) Theory

Diffusion of innovations is a theory profound by Everett Rodgers that seeks to explain how, why and at what rate new ideas and technology spread. Rodgers argued that diffusion is the process by which an innovation is communicated over time among the participants in a social system. According to Rogers (2003), acceptance is a choice of

full use of an invention as the best course of action accessible and refusal is a choice not to accept an invention. He defines innovation as an idea, practice, or object that is perceived to be new by an individual or other unit of adoption. Communication is a process in which participants create and share information with one another to reach a mutual understanding (Rodgers, 1995).

Diffusion study has concentrated on the features of an invention which may affect its acceptance, the decision making procedure that takes place when people think about accepting new invention on products or technology, the features of people that make them likely to accept an invention, the effects for people and society of accepting an invention and communication ways used in acceptance process. Rodgers proposes that four main elements influence the spread of new idea: the innovation itself, communication channels, time and social system.

Invention diffusion study has attempted to explain the variables that impact how and why users accept a new information system, such as the internet. Opinion leaders exert the influence on audience behavior via their personal contact, but additional intermediaries called change managers and caretakers are also included in the procedure of diffusion. According to Rodgers, there are five adopter categories; innovators, early adopters, early majority, late majority, laggards. The criterion for adopter categorization is innovativeness. Innovativeness is defined as the degree to which an individual adopts a new idea. Inventions are often accepted by organizations through two invention-choices: collective invention decisions and authority invention decisions. Collective decision occurs when adoption is by consensus. The authority decision occurs by accepting among very few people with high positions of command within an organization. Unlike the discretionary invention choice procedure, these decision procedures only occur within an organization. Within an organization certain individual

are termed as “champions” who stand behind an innovation and break through opposition. The champions play a very similar role as the champion used within the efficiency business model Six Sigma. The procedure contains five phases that are marginally comparable to the invention-decision procedure that people accept. These stages are: agenda setting, matching, restructuring, classifying and routinizing.

2.2.2 Unified Theory of Acceptance and Use of Technology

This theory was formulated by Venkatesh et al (2003), and aims to explain user intentions while using an information system and the subsequent usage behavior. The theory claims that there are four main factors that will influence usage of a new information system. They include: performance expectancy, effort expectancy, social influence and facilitating conditions. The four factors are moderated by gender, age, experience and voluntariness of the targeted user. For example, for a user who is young and with an IT background, they are more likely to find a new system highly useful in performing their duty, easy to use as they are already technical and will most likely influence their peers in using the same information system. The theory was developed by reviewing and consolidating the Technology Acceptance Model. The model has been used by various researchers in their studies but has also received criticism from various quarters as many compare it with the theory of technology acceptance model. The Unified theory of acceptance and use of technology involves the economic environment of the firm, the structures of the industry and the internal structure of the firm as one of the most important components for the growth and development of the firm. The unified theory involves the change from manual to use of computerized technology which makes work easier and faster. The information system is introduced to the firm by the management according to the various tasks they need to be performed successfully in an automated way. Most of the organizations have changed from the use

of manual system to the Modern information The theory of acceptance and use of technology was earlier demonstrated by other scholars who performed more research work to support their work and shows how the small firms starts and grows to big firms with more growth in output, capital and expenditure as a result of the use of advanced technology by the use of computerized systems.

2.2.3 Theory of Technology Acceptance Model (TAM)

In 1986, Fred Davis introduced Technology Acceptance Model (TAM). TAM which is an information systems theory that prototypes exactly how operators accepts and use technology. The actual system use is the end-point where individuals utilize the technology. Behavioral intention is an aspect that makes individuals to utilize the technology. The behavioral intention is affected by the attitude, which is the overall impression of the technology.

According to Davis (1989), the perceived usefulness, perceived ease of use, and user adoption of information technology means that if the technology is easy to use, then the barriers are conquered but if it's not, the interface is complicated, no one has a positive attitude towards it. The external variables such as social influence is an important factor to determine the attitude. When these things are in place, people will have the attitude and intention to use the technology. However, the perception may change depending on age and gender because everyone is different.

According to Davis (1989), this model suggests that once users are offered new technology, a number of factors stimulates their decision on how and when they will utilize it, particularly: the Perceived usefulness (PU) which was describe by Fred Davis as the level to which an individual considers utilizing a certain system that would improve their work performance. It means whether or not somebody perceives

technology to be suitable for what they want to do and Perceived ease of use which Davis (1989), described as the degree to which an individual believes that using a specific system would be free from effort.

According to Charness (2016), TAM has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology: perceived ease of use and perceived usefulness. An older adult who perceives digital games as too difficult to play or a waste of time will be unlikely to want to adopt this technology, while an older adult who perceives digital games as providing needed mental stimulation and as easy to learn will be more likely to want to learn how to use digital games. While TAM has been criticized on a number of grounds, it serves as a useful general framework and is consistent with a number of investigations into the factors that influence older adults' intention to use new technology

TAM which includes the perceived usefulness, perceived ease of use and behavior intention aided this study in understanding the effect of technology adoption on tax compliance among small and medium enterprises in Uasin Gishu County- Kenya. The theory assisted in explaining the e-filing system and the substantial affirmative impact on the SMEs' tax compliance. The online filing system is consistent with the theory of TAM where the usefulness and ease is made by iTAX filing system. The system of E-Filing is really useful to taxpayers in reporting tax. The system's usefulness must be perceived by the users/taxpayers so that they continue to utilize it to provide quality information system. The paybacks perceived by the user or the taxpayer as a result of the ease of the system will make things positive.

According to Juliyana & Herliansyah (2021), E-Filing system's usefulness is good for the taxpayer. It can accomplish the target or not if it is not too late in reporting the tax.

Easy system of E-Filing for distinct taxpayers, namely the degree to which the activity or the usage of the system can be enjoyable and not difficult to utilize. Adoption of technology continue to build a system which is equally beneficial and easier for taxpayers in addition to it being useful to tax authorities in achieving the revenue target of nation in the effort to build the nation. The usefulness and ease over the technology and information systems create trust and the intention of taxpayer to continue using the E-Filing system. To improve taxpayer's compliance, the trust and the intention of the taxpayer to continue to use e-filing is a priority. There's no effect on the relevance of the Technology Acceptance Model in E-Filing System to the distinct taxpayer compliance with the awareness of the taxpayer as a regulating variable and is proven that the awareness of taxpayers in the act of the getting information technology system of e-filing taxpayer has no knowledge. Awareness of tax magnify the outcomes of education, quality service and answerability on tax compliance. Such knowledge is utilized by the taxpayer in conveying system of e-filing. Perceived Usefulness and Perceived Ease of Use over the e-filing system is positive in that, the taxpayer notice the benefits and ease of use of the e-filing and therefore they are not required to go to the tax's office since tax reporting can be carried out anywhere, anytime thus speeding up transaction reporting process.

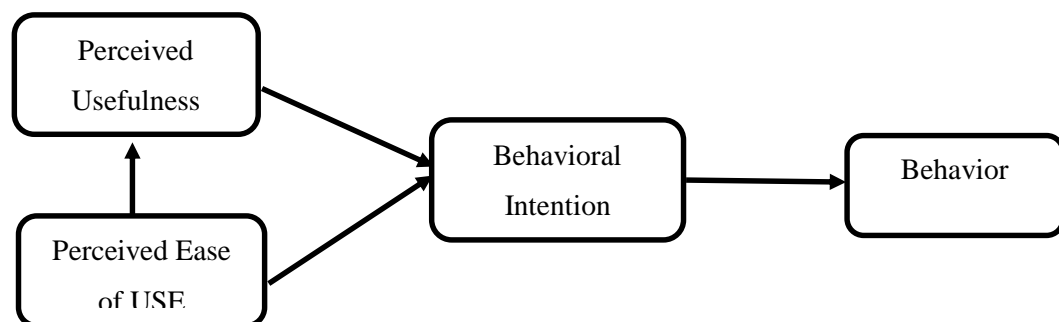


Figure 2.1: Technology Acceptance Model

Source: Davis-1989

The theory is applicable to this study because it describes the model of technology acceptance. Based on the theory, people are bound to make use of a determined technology in the event that they trust that it will provide affirmative outcomes, concentrating on the perceived ease of use as well as the perceived usefulness. In this research, the theory supports the connection between technology acceptance aspects (perceived usefulness, perceived ease of use and perceived risk of use) and tax compliance.

These three theories complement each other as they tackle the issues of technology adoption, the ease of use of the technology and the perceived usefulness. The Diffusion of innovations theory seeks to explain how, why and at what rate new ideas and technology spread. The researcher decided to use this theory in order to understand how diffusion of information with regard to utilization of iTAX system by MSMEs in Eldoret. This is because the effect of technology of iTax is not known and training and awareness on compliance level by MSMEs in Uasin Gishu County is also not clear. This theory aided in understanding all these while The Unified theory of Acceptance and use of Technology aimed at explaining user intentions while using an information system and the subsequent usage behavior. The theory explained the objective of the easiness of use of technology claims that the technically proficient MSMEs easily use the technology as they are already technical. This theory aided this study in determining effect of iTAX systems use on tax compliance and tax collection by SMEs in Eldoret town and the Theory of Technology Acceptance Model guided this study in trying to explain how users accept technology when it is imposed on them. In this study the government of Kenya through KRA made it mandatory for all tax payers to adopt technology in filing their tax returns through adoption and innovation of iTAX system.

2.3 Empirical Literature Review

2.3.1 Effect of Perceived Ease of Use of Technology on Tax Compliance in Small and Medium Enterprises

This was the first objective to this study which aimed at getting the perception of the owners of SMEs in the adoption and use of technology on tax compliance. According to Mustapha (2013), globally there's a lot of focus on online tax system. There is a reflective effect on the tax authority as well as tax compliance setting of any nation as result of the development of information technology. The study further indicated that in numerous developed and developing nations, the tax compliance by the taxpayers is insignificant. The progression of information technology has played a major role in tax system and any nation which is not ready for the modernization of the challenges, certainly ought to face the disconsolate threat in the infrastructure as well as revenue creation all over the country. This study however does not make any mention on the effects of perceived use of technology on tax compliance by the SMEs therefore this study.

According to Musyoka (2019), adoption of technology on voluntary tax compliance has affected a number of small and medium enterprises in Kenya. In Kenya, the small taxpayers were placed under tax section through the Finance Bill of 2006 that presented Turnover Tax (TOT). Earlier the small taxpayers would willfully enlist as tax payers. Most SMEs don't make good on the regulatory expenses and tax avoidance amongst SMEs, stays far over the ground, with a tax hole inside the SME part going from about 33.1% to 35%. This has made numerous small and medium taxpayers not to enroll deliberately as they are negligent in keeping satisfactory records. Those who enlist have voluntarily adopted the technology and are doing so because they have ascribed to the reaction of intentional compliance to a lot of inherent inspiration or demeanor regularly

alluded to as tax spirit. This study too does not indicate the effects such technology adoption has on the SMEs on tax compliance hence this study.

According to Munyoro et al (2018), each year, thousands of Kenyans apply for PIN numbers either for their businesses or their own use. In order to encourage SMEs to acquire PINs, PIN registration for taxpayers has been decentralized and powers to do so passed to self or cyber cafes to make the process easier. Munyoro et al (2018), further evaluated the effects of latest changes from the integrated tax system to the iTAX system intend to uplift utilization of internet to file taxes on compliance of VAT payments by SMEs in Kenya. The study found out that iTax system particularly registration of VAT taxpayers using iTax, filling of VAT returns online, and tracking VAT tax defaulters had a positive as well as substantial outcome on the tax compliance of SMEs. However, the study did not mention the adoption of technology on tax compliance therefore this study.

According to Batz et al (1999), the impact of technology factors on the rate and level of technology adoption depends on the level of education. This study was done in order to analyze the impact of technology adoption in Meru. The study was conducted among 17 dairy technologies with respect to the influence of relative complexity, relative risk and relative investment characteristics on adoption. Technology characteristics were measured by a scoring approach which involves assessments made by extension workers working in the study area. The study found that the past process of adoption and diffusion was significantly influenced by relative complexity and relative risk of the technologies on its adoption. The study further found out that Meru farmers are poorly educated and face shortage of labor making them hesitant to adopt complex technologies. The study concluded that the success or failure of an innovation are based

upon the roles played by individual through the implementation process in which all have been involved. This study however did not mention the effects that the adoption of technology will have on the SMEs on tax compliance therefore this study.

According to Fanelli (2021), the barriers to adopting new technologies within rural small and medium enterprises (SMEs) that operate in several business sectors in rural areas is a crucial issue because they often need financial and technical incentives and support from public and local authorities. The question of whether and how innovation can be replicated and applied in a wider context is strictly connected to the understanding of those factors and mechanisms capable of determining the success or failure of the introduction of innovation itself. The study found out that the types of innovation adopted by firms that operate in rural economies depended on the perceived benefits and the relative cost. The adoption of new technologies by small and medium enterprises operating in rural economies, can generate growth in their competitiveness and profitability. This study too did not mention the effects that SMEs are subjected to in the adoption of technology on tax compliance therefore this study.

According to Ochola (2017), the effect of adoption of technology on tax compliance by SMEs is perceived to be affecting their performance. This study established that if the tax structure is not adequately designed to the specific environmental conditions, it may create a greater burden to the tax-paying organizations and eventually affecting the final consumer due to the shifting ability of tax. The Kenya revenue authority adopted the use digital technologies in its tax returns filing by the taxpayers in order to increase domestic revenues. Within the new strategies, lie great potential in achieving sustainable development, however, the shift is happening quite rapidly and has been made mandatory within a short period of time. The implications of this shift have

prompted the SMEs to adopt the technology in order to keep abreast with the tax policies. The study findings were that the policy maker and regulator do not take into consideration the factors that could affect the competitiveness of the SMEs. This study too did not consider the effects that adoption of technology has on the SMEs on tax compliance therefore this study.

The significance of perceived ease of use is supported by Bandura's (1982) extensive research on self-efficacy, defined as "judgments of how well one can execute causes of action required to deal with respective situations. Self-efficacy is similar to perceived ease of use as defined above. Self-efficacy beliefs are theorized to function as proximal determinants of behavior. Bandura's theory distinguishes self-efficacy judgments from outcome judgments, the latter being concerned with the extent to which a behavior, once successfully executed, is believed to be linked to valued outcomes. Bandura's "outcome judgment" variable is similar to perceived usefulness. In this study, it is therefore indispensable to understand effect of perceived ease of use of technology on tax compliance among SMES by examine the effect of technology acceptance on tax compliance among small and medium enterprises in Uasin Gishu County, Kenya.

2.3.2 Effect of ICT User Skills on Tax Compliance by Small and Medium Enterprises

This is the second objective to this study which was to evaluate the effects of information technology on tax compliance. According to Ndiege et al (2012), tax authorities are turning to e-government led solutions like integrated tax administration systems to interact with taxpaying public in tax collection, administration and compliance settings. The study found out that a number of SMEs in Kenya are slowly but steadily beginning to embrace the use of ICT. With such proliferation it is critical

that the much-anticipated positive impacts from such investments are realized. The findings from this study revealed low positive impact of ICT on the SMEs. The study further found out that the adopted ICT brings positive change to the SMEs. However Very few functional units within the SMEs make use of ICT indicating very low level of intra diffusion of ICT within the SMEs. The findings also revealed that even within the functional units that made use of ICT, a number of business operations were still done manually. This study did not indicate how ICT user skills affect tax compliance therefore this study

According to Lunani et al (2019), the online tax registration and compliance require adoption of ICT and the acquisition of the relevant skills to use the technology. The effect however of online taxpayer registration on Tax Compliance of SMEs is a concept that should be given priority by all SMEs and government for purposes of raising enough revenue to meet the financial requirements of any Country. iTax system was introduced to ease tax compliance procedures and filing tax returns require ICT which its adoption by the SMEs has posed a great challenge while honoring their tax obligations. This study however does not mention the skills of the user of ICT in tax compliance therefore this study.

According to Dowe (2008), the use of ICT to improve the effectiveness of tax administration, expand taxpayer services, and enhance tax compliance has come to attract increasing attention in developed and developing countries. The study found out that the advancement in information and communication technology that the world continues to experience makes tax collection and administration a challenge for many tax revenue authorities. The study also found out that the adoption of ICT come with know-how and if the SMEs do not have the employees who are skilled in the use of

ICT it will have ripple effects as iTax system integrates the processes of registration, tax preparation, tax filing and tax payment and this can pose a challenge to SMEs using the service. Therefore, the SMEs avoid the service because of lack of ICT skills.

According to Mukamanzi & Ndikubwimana (2018), in today's technological progressions the implementation and application of IT is a significant driving force behind many socioeconomic changes. The adoption of novel ICT can generate new business opportunities and various benefits. Nowadays, both large organizations and SMEs are seeking ways to reinforce their competitiveness and improving their productivity. Accordingly, within SMEs there is an increasing consciousness of the necessity to derive profits through investments in IT. In most countries, SMEs are the dominant form of business organizations, accounting for over 90 per cent of the business population and they play a key role in driving sustainable economic growth and job creation. SMEs in Rwanda face many macro-level challenges including limited transport and energy, lack of entrepreneurship skills, low levels of societal trust among others. Bringing SMEs up to speed with the digital revolution is not just a matter of improving their quarterly profits, but also about creating growth and jobs. This study too did not mention how the effect of ICT user skills affect tax compliance by small and medium enterprises in Uasin Gishu County.

According to Ardjouman (2014), almost all SMEs use the internet for business purposes but the intensity of the use is diverse with increasing size. The most common use of internet was being in touch with customers. Whereas the use of e-commerce was increasing, it was still much less predominant. The study determined that a quarter of the SMEs did not have basic digital skills and that some SMEs have an attitudinal barrier towards developing an online presence and hence did not find it necessary to

adopt the same. Furthermore, it established that the lack of a technological environment including lack of critical mass use, inaccessibility of ideal technology and e-business infrastructure are major external hindrances obstructing technology adoption and use by SMEs.

Chene, (2009), conducted a study in South Africa concerning the implementation of integrated tax management system. The study was conducted to establish the influence of employee capacity on the adoption of integrated tax management system. The findings of the study revealed that employee capacity building is a major factor affecting the adoption of integrated tax management system, especially in developing countries. A comprehensive training programme is therefore vital for the success of the project and should be compiled as early as possible.

To further corroborate the above assertion Vickland & Nieuwenhuijs, (2005) conducted a study on the influence of ICT staff capability on tax compliance. The authors found out that training is essential to unlocking client readiness and is the best way to ensure tax compliance. Additionally, Frankle, (2009) established that the shortage of skilled ICT people is an impediment to tax administration. Training should be provided to senior managers, technical staff and end users, and should teach users how to use the new system and how it affects business processes. The findings were consistent with work by Diamond and Khemani (2008) that training to improve capacity building will not only include training in the use of integrated tax system but will also entail training in the new legal and regulatory framework.

As well, Rodin and Edwin, (2008) carried out a study on the influence of employee capacity on tax compliance. The findings of their study revealed that a well-defined training programme will also assist in building capacity and help build confidence

amongst users who, through the process, are reassured that there will be some constants amidst the change thus more tax compliance. Given the nature of institutions and organizations, capacity building is a never-ending process. It needs to be ongoing and permanent. On the other hand, Sahin, (2009) conducted a study on the influence of employee capacity on tax compliance. The findings of the study revealed that low level of computer literacy must first be adequately addressed before tax administration can be truly viable.

The lack of staff with required IT-knowledge cannot be easily remedied by training and hiring. The current salary structure and terms of employment in the SME sector are usually not attractive enough to incentivize candidates with required IT-skills. There is also a risk that trained staff leaves for better job opportunities. From the review of the literature, there is need for capacity building and training for ICT staff in SMEs for the sole purpose of enhancing tax compliance. The process should assess the level of knowledge, recruiting needs, and define the scope of the training curricula, targeting the various key audiences

2.3.3 Extent to which Perceived Usefulness of Technology affect Tax Compliance in Small and Medium Enterprises

According to Ardjouman (2014), lack of awareness and cost are critical elements in the general adoption and use of technology for SMEs. This lack of awareness contains numerous factors, which includes uncertainty of technology benefits, lack of guidance and unfamiliarity of technologies. This study found out that cost is mostly related to technological factors such as, training, maintenance costs, information systems and software. The extent to which perceived usefulness of technology affect tax compliance by small and medium enterprises therefore is dependent on this cost. The study also found out that the perceived barriers in adoption and use of technology by SMEs affects

its uptake. The study further established that most SMEs fear the perception of the external environment like the suppliers, buyers and government pressure and penalties on non-compliance with tax regulations

According to Mandola (2013), the advancement in information and communication technology that the world continues to experience makes tax collection and administration a challenge for many tax revenue authorities. The found out that tax authorities have to maintain a modernized and responsive tax administration system so as to facilitate faster collection of taxes. An iTax system was one of those modernized and responsive tax administration which has integrated the processes of registration, tax preparation, tax filing and tax payment. The study further found out that the taxpayers are able to avoid the hassles of visiting the tax office and making long queues, because the returns are filed at their convenience. This tax system has enabled taxpayers in this research the SMEs to submit their tax returns electronically to the tax authorities thus helping them to prevent many mistakes which might occur by taxpayers filing manual. However, this study did not make any mention on the SMEs perception on tax compliance therefore this study.

According to Halim et al (2015), an Online tax system speeds up tax assessment and service delivery in the Philippines as the waiting period for a taxpayer for information on his individual account was reduced from about four hours to only three minutes. It also makes a country's tax administration more effective, leading to significant increases of tax revenue collection as noted in the Philippines that there was an increase in real property tax of more than 80% after the introduction of iTax system in the province. This study however did not mention on the perception of the users and the usefulness of technology on tax compliance by SMEs therefore this study.

According to Atika (2012), iTax system forms part of the revenue collection reforms by Kenya Revenue Authority whose main motive is enhancing tax collections and tax efficiency. The main object of the introduction of iTax system according to Atika (2012), is to spearhead tax compliance. Noncompliance with tax returns is always a major concern in all tax administration and if noncompliance is accumulated, it will result into a serious problem to the state revenue. This according to the study findings will result into serious penalties. The study also established that Kenya Revenue Authority has a centralized ICT department that provides support services in terms of electronic systems to the entire organization all these are in a bid to facilitate voluntary compliance by tax payers. This study however did not make a mention on the perceived usefulness of the SMEs on tax compliance therefore this study

According to Davis, (1989), the perceived usefulness may be described as the degree at which the user believes that the use of a particular system will sustain his work. Perceived usefulness is defined here as "the degree to which a person believes that using a particular system would enhance his or her job performance. This study did not mention the perceived usefulness of technology and how it affects tax compliance by small and medium enterprises therefore this study.

According to Dzionu (2012), the usefulness of using information technology to manage the operations and delivery of public sector institutions to include: improvement in administrative efficiency, effectiveness and productivity, improvement in service delivery, reduction in administrative, operational and transactional costs of public and provision of access to information at a reduced cost. In relation to taxation, significance of the use of IT is infinite, some of which are; facilitates a reducing in the overhead cost of managing the agencies of government responsible for tax administration, instant computation of tax liability from the use of online tax calculator,

reduced cost of registering tax payers and instant generation of tax identification number, reducing in staff-taxpayers collusion as regards tax liability, reduction in fraudulent activities of tax collectors in the aspect of non-remittance of tax received from tax payers and boost the revenue of government in terms of reduction in expenses (administrative, overhead and transactional) and corrupt practices.

According to Adewoye et al (2013), the anticipated benefits of implementing an information technology system include improvements in productivity, better profit performance, and a higher degree of accuracy of information. Productivity typically improves in organizations which implement information technology, although there can be some loss of productivity during the "learning curve." This study however did not mention the usefulness of technology and how it affects tax compliance by small and medium enterprises therefore this study.

According to Oseni (2015), the use of ICT can be catastrophic if carelessly employed by both the tax payers and the tax administrators as scammers and hackers of the internet facilities can utilize the ignorance or the lax security of the system. The study findings were that a system that does not help people perform their jobs is not likely to be received favorably in spite of careful implementation efforts. In this study, it is therefore crucial to understand the extent to which perceived usefulness of technology affects tax compliance among SMES by examine the effect of technology acceptance on tax compliance among small and medium enterprises in Uasin Gishu County, Kenya.

2.3.4 Effect of Electronic Tax Filing System Cost on Tax Compliance in Small and Medium Enterprises

According to Odongo (2014), tax compliance levels among the SMEs in Uganda were found to be very low. This was attributed to several factors that led to low tax

compliance levels in Uganda including poor book keeping, low sales turn over, and frequent ownership changes. The study further found that large proportion of SMEs were ignorant of taxation processes and computations, and lack of comprehensive sensitization programs by the Uganda Revenue Authority. The study further found that similar challenges were facing SMEs in Kenya. Since income tax and value added tax rates are punitive, lack in-built mechanisms will result into noncompliance. The study also found out that KRA still lacks adequate and frequently updated information systems on registered taxpayers and computerization of taxpayer records is still incomplete.

According to Musyoka (2019), quoting Wasao (2014), the study examined the impact of online tax system on tax compliance among small taxpayers in East of Nairobi Tax District. The study findings demonstrated that online registration, filing and payments had a significant positive effect on tax compliance of the small taxpayers in this area even though the degree of compliance differed across sectors. The study found that small taxpayers in mining and mines sector seemed not to have embraced online filing. It was found that online system made the registration of taxpayers easy. While a number of taxpayers agreed that with online system payments were more accurate and their tax ledgers got updated in real time, majority however, had reservation with accessibility especially on due dates due to server downtimes.

Barako (2015), examined the efficacy of iTax system on tax administration in Kenya. The study was descriptive in nature. The study found that iTax implementation led to an increase in the variability of the revenue return. This was attributed to the simplification, standardization and harmonization of tax procedures to reduce inefficiency within tax administration. According to this study, Barako (2015), found

out that iTax led to simpler and more streamlined processes to pay and collect taxes, reduced tax officials' discretionary power, increased predictability, lessened the burden for firms and individuals to comply and hence reduced the opportunities for corruption. This study found a positive impact in terms of saving cost but did not mention how the SMEs dealt with compliance in relation to incidental costs

According to Livoi (2017), in the study on the effect of tax reforms on corporate tax compliance in Kenya, the study found that while technological reforms in particular iTax was a key factor in enhancing corporate tax compliance, its effect was weak to influence corporate tax compliance. These findings implied that the intended success in increasing tax compliance was yet to be met. The study highlighted that in as much as companies filed their return online, not all companies filed their correct tax liability and others manipulated their tax liability for other gains. This study however did not indicate the effects that the electronic tax filing system cost the SMEs on tax compliance therefore this study.

According to Lunani (2019), the voluntary tax compliance requires no state enforcement for the taxpayers to comply with the tax requirements in contrast to the involuntary tax compliance. Tax compliance is concerned on the timely and accurate submission of tax remittance information to the revenue authority. The online filing system has a direct impact on the tax compliance levels as the online filing of the tax returns ensures that there is lack of inconsistencies, missing information and unintentional errors. The study found out that this online system ensures that the taxpayer has filled all the required mandatory fields before allowing him to proceed to the next level. These findings were that such requirements were making it hard for the SMEs who did not want to disclose their details were made to do so and this will cost

them as they have to make full disclosure and correct returns. The study further found out that the low tax compliance levels in among the SMEs was due to poor book keeping among other factors. to comply with these requirements means securing a service of an expert and that will cost money.

2.3.5 Effect of ICT Infrastructure on Tax Compliance in Small and Medium Enterprises

Infrastructure investment refers to investing in SMEs entire collection of hardware, software, networks, facilities and support information technology services. Historically, the most prevalent use of ICT in tax administrations has been to underpin the core tax administration tasks of processing returns and payments and collecting relevant information. The 'core tax' component of contemporary ICT continues to provide support for these tasks, enabling the tax administration to move away from heavy manual processing and to direct its resources to facilitating, monitoring, and enforcing compliance.

According to Holniker (2005), infrastructure investment on ICT has brought about a significant improvement in the revenue collection time for taxpayers. Revenue mobilization is considered as one of the key factors key for economic development of nations and links into national agenda on social wellbeing, poverty reduction and economic development of countries and their citizens. Travis (2004) also indicated that in a bid to strengthen and go beyond existing programmes and practices, Kenya Revenue Authority has put in place a regime that seeks to enhance investment in ICT infrastructure in a bid to enhance tax mobilization and compliance.

According to Onajite (2013), a robust and scalable telecoms infrastructure will make a success of cashless policy, she further explained that there had been cases where some

of the PoS machines were not working as a result of network collapse, which automatically became impossible to carry out financial transactions using the electronic cards on the PoS to pay bills, that is, some e channels infrastructures are not working fine which will deter the success of cashless policy. The benefits of automation include a reduction of fraud, remote access to information, improved collection statistics, and uniform application of tax legislation. The introduction of tax registers minimizes direct contacts between tax collection officers and traders hence reduction of corruption. Further benefits achieved through automation include improved reporting, control of file transfers, automatic reconciliation of tax returns declarations, and compliance testing of bank files. Paperless declarations and customs automation save time and make it easier to focus on inspecting high-risk consignments. The possibility of submitting tax returns declarations on-line has in some cases made it possible to reduce the associated fees; in other cases, it has helped eliminate the obligatory contracting of Customs agents.

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

According to Sani (2009), automation system helps to improve revenue collection. This is because they are based on the electronic payment system via applications such as toll

revenue collection, automatic fare collection, bus revenue system and parking system. Additionally, by automating revenue collection, service providers are in better audit trail since all transactions captured can be detailed by time, whom and where. This prevents revenue loss through abuses as all moves are recorded electronically. Automation also provides huge transactions that need to be handled efficiently. According to him, automating revenue collection is key especially within the revenue collection agencies, which therefore requires fast and efficient output, as there will always be a trade-off between control and operational needs.

According to Andarias (2006), technology is an important tool if properly used; otherwise, it can as well become a problem that needs solving, rather than the solution. The technology used in tax administration entails the use of computer, internet and software applications. Technology is only regarded as efficient when handled by well-trained personnel and if embedded in the workflow of the organization. Good technology needs only to be applied in tax administration if it satisfies some basic principles which also include reducing life of tax, improving efficiency and reducing errors in procedures, increasing multi-tasking levels of tax officers and facilitating taxpayers in complying with tax regulations.

According to Webley (2004), exercising tax compliance responsibility requires taxpayers to have a systematic approach for managing tax compliance risks, aims to ensure that these risks are properly identified, assessed, prioritized and treated. One of the ways through which to achieve cost effectiveness in tax administration is by use of technology.

According to Reinganum and Wilde (2006), improved technology in tax administration alone is not entirely positive, however its benefits include features such as 24/7 access

to taxation services, services from the comfort of one's home, lower services costs, reduced burden on tax officers, as well as automated procedures. However, the most important negatives include high costs, additional communication channels to be managed, additional knowledge requirements, and the need for policies and plans.

Chatama (2013), did a study to examine how ICT has modernized tax administration methods and enhanced revenue collection, focusing on Tanzania Revenue Authority (TRA). According to the researcher, ICT was introduced into the department in year 2001 for facilitating maintenance and timely access of records and fast processing of return to remove postal delays; minimize operational costs; curb cheating and plug revenue loss. The study found that the revenue collected increased over the study period, and this was attributed to the introduction of ICT systems which shortened the processing time for returns and the time for responding to queries raised by tax payers. However, even though different economic factors like; increased internal trade, reduced importation and more reliance to domestic products may cause the increase, without good tax administration policies, such income would not have been reflected in overall collections. This thus confirms that ICT usage enhances better tax administration and increases revenue collection. This study is different from the current study in that it was conducted in Tanzania which has different tax administration policies from the Kenyan Tax system. It will be of help to find out if the same findings will be found in the Kenyan context.

According to Sigey (2010), the impact of automation as a structural change strategy on customs clearing procedures at Kenya Revenue Authority, greatly enhanced operational usefulness and productivity, increased employees' professionalism and productivity, reduction of operational costs and improved governance. The study recommended that

the KRA management should think about the safety of the system in regard to manipulation which can be a significant danger to the organization and to the Kenyan Government as a whole. The study further found out that technology needs to facilitate the task of taxpayers when complying with their tax obligations, as it aids in increasing accessibility to information, widening range of means of payment, reducing need for taxpayers to visit tax office, and by reduction in the time taken by taxpayers waiting for assistance. All these activities described are simply aimed at enhancing compliance. Technology use is key for the tax administration activity given that large set of data must be processed. But the technology needs not be considered the objective, quite opposite it needs to be regarded to gain efficiency and to enhance tax compliance.

2.4 Critique of Literature

According to Nyandieka (2020), the proposed the TAM to focus on the reason the users accept or reject ICT and how to improve the acceptance, offering, this way, a support to foresee and explain the acceptance. Davis (1989) established that people tend to use or not certain technology with the objective to improve their performance at work- perceived use. However, even if this person understands that determined technology is useful, its use may be damaged if it is too complicated, in a way that the effort is not worthwhile the use- perceived facility. This way, the TAM is based basically in two constructs: the perceived utility and perceived facility, seeing that both measured completely the effects of external variables, such as features systems, development process, and training in the use intention (Davis, 1989).

Theory of Reasoned Action (TRA) has its genesis in the social psychology that searches to identify the determinant factors of the consciously intentional behavior (Fishbein; Ajzen, 1979). It defines the relationship between beliefs, attitudes, norms, intentions and behavior that is, a determined behavior for example, technology use or rejection is

the result of an intention in making the behavior, and this intention is influenced conjointly by the individual attitudes been this attitude determined by beliefs and subjective norms in relation to the aimed behavior (Quintella; Pellicione, 2016).

The ability to pay theory was developed by Smith and Pigou (1903). The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state. The ability-to-pay principle requires that the total tax burden will be distributed among individuals according to their capacity to bear it, taking into account all of the relevant personal characteristics. This theory guided this study in understanding the exact measure of a person's ability or faculty to pay.

From these three theories above, TAM works on the basis that perception is the driver to adoption or rejection of technology, TRA identifies beliefs and social psychology to drive technology acceptance or rejection while the Ability to Pay seeks to contribute towards the support of the government as nearly as possible in proportion to the respective abilities and the taxpayers should enjoy under the protection of the state.

2.5 Research Gap

A critical review of past literature show that several conceptual and contextual research gaps existed in the relationship between the adoptions of technology by the SMEs on tax compliance. The upgrading by KRA the tax management systems from ITMS to itax and to integrated customs management system (ICMS) was aimed at curbing non-compliance b the SMEs so as the government can meet its revenue targets. Despite these efforts, there is still tax non-compliance by the SMEs and this has made fail to achieve its projections. There is therefore, a gap in knowledge as to the effect of

technology adoption on tax compliance among small and medium enterprises in Uasin Gishu County- Kenya therefore this study.

2.6 Conceptual Framework

The conceptual framework is an outline highlighting how the variables are expected to relate in the real setting and the knowledge that builds the basis of the study. The conceptual framework is created to demonstrate relationships between the technology acceptance and tax compliance among small and medium enterprises operating in Uasin Gishu County. Based on the literature review, the study conceptual framework (Figure 2.1) has been developed to examine the relationship between the independent variables perceived ease of use of technology, ICT user skills, perceived usefulness of technology, electronic tax filing system cost, ICT infrastructure and tax compliance by SME of Uasin Gishu County as a dependent variable. The relationship between the dependent variable and independent variables is show in figure 2.1 below;

Independent variables

Technology Adoption

Dependent Variable

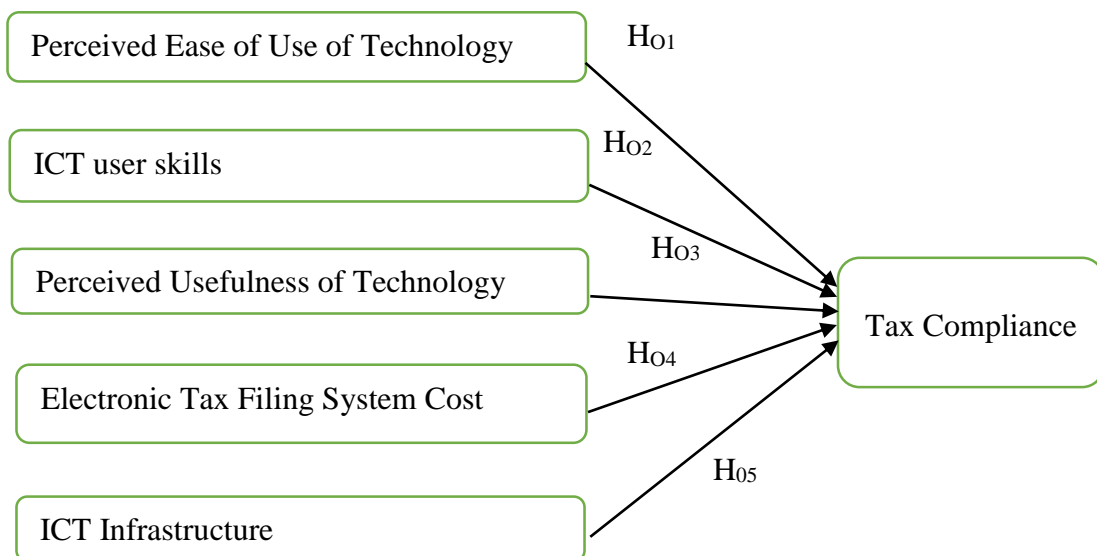


Figure 2.2: Conceptual Framework

Source: Researcher, 2021

This chapter focused on reviewed literature in the previous studies, the theoretical, empirical and conceptualization framework for the study. Chapter three herein below will present the study area, research design, target population, sampling procedures and sample size, research instruments to be used in the collection of data and data analysis.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The chapter outlines the study area, research design, target population, sampling procedures and sample size, research instruments, viability and reliability of research instruments, data collection procedures, data analysis and presentation.

3.1 Research Design

Research design constitutes a blueprint for the collection, measurement, and analysis of data (Cooper & Schindler, 2008). According to Kothari (2010) study design is a plan for collecting and utilizing data so that desired information can be obtained with adequate accuracy or so that the study hypothesis can be tested appropriately. The study adopted explanatory research design. This research design was suitable for this study because the researcher wanted to explore why non-compliance occurred when limited information on the same is available. The design also assisted the researcher so as to ascertain how or why technology adoption on tax compliance in Uasin Gishu is at its lowest among the MSMEs. The study was on this design since emphasis is on highlighting the relationship in existence among the variables of interest. The focus of the design was on establishing how one variable affects the other; it delved into the reasons behind the relationship between one or more variables, the causality and the causes. According to Cooper and Schindler (2003), an explanatory study uses theories or hypotheses to account for the forces that caused a certain phenomenon to occur. They further said it goes beyond description and attempts to explain the reasons for the phenomenon. Orodho (2003) explained that an explanatory study analyses the cause-effect relationship between two or more variables. This design was the best for determining the effect of technology acceptance on tax compliance.

3.2 Study Area

The study was carried out in Eldoret CBD. Eldoret town is the capital of Uasin Gishu County and a business hub for North rift region. Eldoret town is the county's main population centre as well as its administrative and commercial centre. Uasin Gishu is located on a plateau and has a calm and temperate climate. The county borders Trans-Nzoia County to the north, Elgeyo-Marakwet and Baringo counties to the east, Kericho county to the south, Nandi county to the south, south-west and Kakamega county to the west. Majority of the SMEs in this town fall in the following categories of enterprises; financial sector, hospitality, retail and whole sale, service and repair. This makes the choice of the study area ideal for this study. Choice of the study area for the study was informed by argument that, no similar studies on effect of perceived technology adoption on tax compliance among small and medium enterprises has been conducted in the area; the town also provides a good setting for conducting this study since it has a good number of SMEs offering various services under diverse sectors and hence the researcher was able source relevant information for the study.

3.3 Target Population

The target population is the full set of cases from which a sample is taken (Kothari (2004). A population contains of all elements-persons, substances, or object-whose characteristics are being studied. Also, Kerlinger (2003) mentions population as the study subjects who are comparable in one or more ways and forms the subject of the study in a particular survey. The target population for this research covered the owner's/managers of SMEs in Eldoret Central Business District. The target population of this study comprised of 320 owners/managers from 320 SMEs drawn from the following sectors; financial sector, hospitality, retail and wholesale and service & repair. The criteria for the selection of the enterprises are; the physical location

(dispersion), physical size, and the size of employees. This offered a clear picture of the variables under study; moreover, owners/managers were targeted since they are well equipped with information pertaining adoption of technology and tax compliance hence a fit as unit of analysis. As such, the study population comprised 320 employees as shown in table 3.1.

Table 3.1: Target Population

Category Population	Population
Financial Sector	72
Hospitality	65
Retail and Wholesale	104
Service & Repair	79
Total	320

Source: (Selected SMEs, 2021)

3.4 Sample Size and Sampling Procedure

According to Gerring (2004) a sample in case study is comprised of several units which are observed at discrete points in time in regard to the study variables. From the target population of 320 owners/managers, Yamane (2016) sample size formula was used to select a sample size of 178 SMEs as shown below;

$$n = \frac{N}{1 + N(e)^2} = \frac{320}{1 + 320(0.05)^2} = 178$$

Where:

n = Sample size

N = Population size

e = the error of Sampling

This study allows the error of sampling at 0.05. Thus, sample size was 178 SMEs.

3.5 Sampling Procedure

The study used a combination of stratified and systematic sampling techniques to select the respondents. Therefore, SMEs were stratified into four strata (sectors) where the sample sizes were distributed according to Sekaran (2009) allocation formula. The purpose of the method was to maximize survey precision, given a fixed sample size. Sekaran (2002) allocation formula was as follows;

$$n_{h=} \left(\frac{N_h}{N} \right) n$$

Where,

- nh - The sample size for stratum h,
- n - Total sample size,
- Nh -The population size for stratum h,
- N - The total population

Hence, distributions were as follows;

Table 3.2: Sampling Procedure

Stratum	Population	Calcation of Sample size	Sample Size
Financial Sector	72	72/320x178	40
Hospitality	65	65/320x178	36
Retail and Wholesale	104	104/320x178	58
Service & Repair	79	79/320x178	44
Total	320		178

Source: (Selected SMEs, 2021)

On the other hand, systematic sampling was adopted because it ensured that each individual had an equal probability of inclusion in the sample (Creswell & Creswell, 2017). Under systematic sampling, selection of the first unit was done randomly, while selection of all other units were done by picking the nth observation, where n was arrived by dividing the population by the required sample size. Systematic sampling was precisely used to constitute the sample of employees required from each sector.

3.6 Measurement of Variables

The dependent variable is the variable that is being measured or tested in an experiment, it's the presumed effect. Tax compliance by SME serves as dependent variable. Tax compliance is preparing and filing sales and use tax returns. Once a taxpayer is registered to collect or pay sales and use taxes in a jurisdiction, returns must be filed and the tax must be remitted on a timely basis. The relationship between the dependent variable and independent variables is show in figure 2.1 in chapter two.

3.6.1 Tax Compliance

Tax compliance was measured using the following statements as they appear in section I of the questionnaire; "I usually pay tax", "I have ever attempted to avoid taxes", "I have ever delayed paying taxes", "I have ever been penalized for tax payment failure", and "Technology acceptance has enhanced tax compliance".

3.6.2 Perceived Ease of Use of Technology

Perceived ease of use of technology will be measured through its 5 closed ended questions in section II of the questionnaire; "Technology use requires fewest steps possible to accomplish what I want to do in tax related issues", "The use of technology on tax related issues is flexible", "I can use technology without written instructions", "I don't notice any inconsistencies as I use technology", and "Technology has enhanced tax compliance"

3.6.3 ICT User Skills

ICT skills will be measured by its indicators as shown in section III in the questionnaire; " I possess adequate knowledge related to computer hardware", "I have sufficient knowledge on computer software", "I have knowledge on the procedures involved

executing tax related activities”, “I have sufficient skills on the use of online tax system” and “ ICT user skills in this organization enhances tax compliance”.

3.6.4 Usefulness of Technology

Usefulness of technology will be measured by its indicators as shown in section IV in the questionnaire; “Technology helps me be more effective on tax related procedure”, “Technology gives me more control over the activities related to tax compliance”, “Technology makes the activities related to tax compliance easier to be accomplished”, “Technology saves me time when I use it” and “Technology use provides helpful guidance in performing tasks related to tax compliance”

3.6.5 Electronic Tax Filing System Cost

Electronic Tax Filing System Cost will be measured by its indicators as shown in section V in the questionnaire; “Automation of processes in the SME has enhanced efficiency in tax compliance”, Automation of processes help in improving accountability and transparency in tax compliance”, There has been improvement in tax compliance since the inception of ICT support services” and “Electronic tax filing system has enhanced tax compliance’.

3.6.6 ICT Infrastructure

ICT Infrastructure will be measured by its indicators as shown in section VI in the questionnaire; “Infrastructure investment on ICT has enhanced tax compliance through revenue collection”, “Investment in ICT infrastructure has enhanced tax compliance through tax mobilization”, “The availability and reliability of internet connection has enhanced tax compliance”, “ SME Investment in adequate ICT facilities has facilitated tax compliance” and “The availability of backup system to support the online tax system enhances tax compliance”.

3.7 Research Instruments

The study data was produced from primary and secondary sources. Primary data was through the administration of the developed research questionnaires to four categories of SMEs i.e., service repair contractors, hospitality, financial sector and retail and wholesale. Secondary data was mainly obtained from the Kenya Revenue Authority and Uasin Gishu County records.

Table 3.3: Summary of Measurement of Variables

No.	Section in questionnaire	No. of Items	Level of Measurement	Reference
1.	Part I: Tax Compliance	5	Ordinal scale	Andarias (2006)
2.	Part II: Perceived ease of use of Technology	5	Ordinal scale	Dowe (2008)
3.	Part III: ICT User Skills	6	Ordinal scale	Holniker (2005)
4.	Part IV: Perceived Usefulness of Technology	5	Ordinal scale	Andarias (2006)
5.	Part V: Electronic Tax Filing System Cost	4	Ordinal scale	Thurman (2010)
6.	Part VI: ICT Infrastructure	5	Ordinal scale	Webley (2004)

Source: Researcher, 2021

3.7.1 Questionnaires

Data was collected from the four categories of SMEs i.e., service repair contractors, hospitality, financial sector and retail and wholesale using semi-structured questionnaire. The quantitative data collected using the semi-structured questionnaire used to address and answer all the research objectives; from objective one to objective five. The semi-structured questionnaire is preferred for collecting data because it has the advantage of obtaining standard response to the items in the questionnaire, making it possible to compare between sets of data. The questionnaire was designed to apply to a heterogeneous population, where the respondents come from the general open public, with no bias to gender, education, background and profession. The questionnaire was

divided into section (A&B), where A consist of background information about the respondents, while section B covered questions/statements that points to obtaining information about the perception of respondents on technology acceptance and tax compliance. The instrument was also constructed using closed ended items only because this enables easy coding and analysis of answers (Saunders, Lewis, & Thornhill (2009). Response scores were elicited on a 5-point Likert type scale scores as follows: 1-strongly disagree; 2-disagree; 3-neatral; 4-agree, 5-strongly agree.

3.8 Validity and Reliability of Research Instruments

Validity is the quality attributed to proposition or measure of the degree to which they conform to establish the truth (Sekaran, 2009). The study used both face and content validity to determine the validity of the questionnaires. As a check on face validity, test/survey items were sent to the pilot group to obtain suggestions for modification (Rousson, Gasser and Seifer, 2002). A pilot test was carried out in Kitale CBD, Trans Nzoia County. The study helped to ascertain whether questionnaire measured what it was intended to measure. The rationale behind the choice of Kitale CBD is that it had the desired social economic characteristics of trade, moreover factors affecting SMEs in relation to owners' characteristics are same to those in Eldoret CBD. The purpose of construct validity is to show that the items measures are correlated with what they purport to measure and that the items do not correlate with other constructs. Content validity of the data collection instruments was assessed and confirmed by experts in the fields of financial management. Content validity is concerned with sample-population representativeness.

Reliability is a measure of the degree to which a research instrument produces consistent results or data after repetitive trials (Mugenda & Mugenda, 2003). Reliability in research is influenced by random error. As random error increases, reliability

decreases (Mugenda & Mugenda, 2003). Reliability of the questionnaire was evaluated through administration of the said instrument to the pilot group of 15 respondents from SMEs sector. A construct composite reliability co-efficient (Cronbach Alpha) of 0.6 or above, for all the constructs, was considered adequate for this study. The acceptable reliability coefficient is 0.7 and above (Rousson, Gasser and Seifer, 2002). In this study, 0.7 was used to indicate reliability of the research instruments and the results for all the items in Table 3.4 below.

Table 2.4: Test of Reliability of the Research Instrument

Scale	No of Questionnaire items	Cronbach's alpha
Perceived ease of use of technology	5	0.940
ICT user skills	5	0.840
Perceived usefulness of technology	5	0.850
Electronic tax filing system cost	4	0.747
ICT infrastructure	5	0.847

Source: (Field data, 2021)

3.9 Data Collection Procedures

Permission to collect data was requested from Moi University and a copy given to Uasin Gishu County before proceeding for data collection. The researchers made personal visits to all the sampled four categories of SMEs in Uasin Gishu County. i.e. service repair contractors, hospitality, financial sector and retail and wholesale. The first visit was for acquainting with the respondents and explains the intention of the study.

3.10 Data Analysis and Presentations

Applying reasoning to understand the information to be collected (data) with the aim of determining existence of consistent patterns and to summarize the relevant knowledge is referred to as data analysis (Zikumund et al., 2012). The data collected

for the purpose of the study was adopted and coded and assessed for comprehensiveness and accurateness of information at the end of every field data collection and before storage. Data capturing was done using Excel software. The data from the completed questionnaires were cleaned, coded and entered into the computer for analysis using the Statistical Package for Social Sciences (SPSS version 25).

Data was analyzed using descriptive and inferential statistics. Frequencies and percentage distribution were used to analyze data on the respondents' profile and background information. Although the validity of the questionnaire was tested before distribution to respondents; at the time of analysis the component analysis test was conducted to determine the validity of each of the questions/statements used to arrive at the finding of the study. Mean score of responses to the question were derived so as to convert the qualitative responses supplied by the respondents to quantitative data using the weights of the seven Likert scale; this was done in order to make the data suitable for regression analysis. The regression analysis was conducted to determine interactions between the variables in order to determine if the independent variables (perceived ease of use of technology, ICT user skills, perceived usefulness of technology, electronic tax filing system cost and ICT infrastructure) explains the dependent (tax compliance).

3.10.1 Model Specification

The information was presented and discussed as per the objectives. Therefore, each index for perceived technology adoption was generated using the following model for the simple linear regression analysis which is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: -

Y = Tax Compliance

β_0 = The intercept

X_1 - X_4 = The four dimensions of perceived technology adoption (ease of use of technology, ICT user skills, perceived usefulness of technology, electronic tax filing system cost and ICT infrastructure)

β_1 – β_5 = Factor Coefficients

ε = Error Term

3.10.2 Assumptions of Regression Model

Just like other parametric tests, regression model is based on the assumption that data has certain characteristics, violation of which affects analyzed findings (Field, 2017). The assumptions include; observations are of independent samples, data is drawn from normally distributed populations, populations have the same variances linear association between variables among others. The study considered variety of tests to ensure the assumptions are not violated. The tests include: normality, linearity and multicollinearity to establish suitability of the data for making inferences and drawing conclusions.

Normality has been postulated as a vital assumption that must be satisfied in order to conduct multivariate analysis (Ghasemi & Zahediasl, 2012). Normality assumes that prediction residuals in the prediction value of the dependent variable follow a normal distribution. The normality of the data in the current study was tested using a combination of Shapiro-wilk, and the Kolmogorov-Smirnoff statistics as recommended by (Ghasemi & Zahediasl, 2012). Under the Shapiro-Wilk and Kolmogorov-Smirnoff

framework, non-significant statistics is an indication of existence of normality (Shapiro & Wilk, 1965).

Multicollinearity constitutes high coefficients of correlation in two or more predictor variable, which when it exists impacts negatively on regression parameter estimation (Hair *et al.*, 2006). Presence of multicollinearity masks the assessment, and hypotheses testing about regression coefficients (Hair *et al.*, 2006). Hair *et al.*, (2006) argues that if the tolerance between explanatory variables is more than 0.5, then it indicates the presence of multicollinearity. Furthermore, it is posited that if the Variance Inflated Factor (VIF) is greater than 10, there is evidence of multicollinearity (Ghasemi & Zahediasl, 2012). Therefore, the study employed both the tolerance and VIF to test for existence of multicollinearity.

Linearity. This assumption holds that, there should be a linear relationship between dependent (response) variable and independent (predictor) variable(s). It means the correlation between variables, should be represented by a straight line. This study tested linearity using Pearson correlation. A linear relationship suggests that a change in response Y due to one-unit change in X^1 is constant, regardless of the value of X^1 .

3.11 Ethical Considerations

According to Saunder *et al.* (2007), ethical consideration is principles that should be followed during data collection stage of research. Creswell (2017) posit that ethical consideration is the systematic rules or standards governing the conduct of researcher. In this study, the researcher sought the permission from NACOSTI. An introductory letter was presented to the relevant office so as to carry out the research. Participants were given enough information pertaining to the study before the administration of the research instrument. The possible benefits and value of the study was explained to the

participants. To follow ethical principles, the researcher did not force respondents to participate in the research study, the data was kept confidential and not to be disclosed and the name of any respondent were identified during and after collection of data.

In addition, no information revealing the identity of any individual was included in the final report or in any other communication prepared in the course of the research, unless the individual concerned has consented in writing to its inclusion beforehand. No pressure or inducement of any kind was applied to encourage an individual to become a subject of research. The respondents have the right not to associate themselves with the information they give. Based on this background, respondent's identity was kept confidential. To establish good working relationship with the participants, the researcher developed a rapport with them.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION, PRESENTATION AND DISCUSSION

4.0 Introduction

This chapter presents outcomes of this study based on the formulated objectives and hypotheses. The chapter examines the variables used in the study and estimates the conceptual model described in chapter two. Descriptive results have been presented followed by diagnostic tests. The model estimation and the analysis of the results have then been explained. The chapter ends with coefficient of estimate table which enabled hypotheses testing; the hypotheses were either accepted or rejected depending on the p values and *Beta* value gotten.

4.1 Response Rate

A total of 178 questionnaires were administered to the target respondents comprising SME owners/managers from SMEs in Eldoret Central Business District. From the issued questionnaires, a total of 168 were filled and returned by the respondents. This presented a response rate of 94.3%. According to Creswell (2017) any response of 50 percent and above is adequate for analysis in research, 60 percent is good and above 70 percent is rated as very good. The researcher anticipated that the respondents of the study would have tight schedules and this prompted allocation of enough time, which greatly contributed to the high response rate. Below is table 4.1 illustrating the response rate.

Table 4.1: Response Rate

Responses	Statistics
Initial Sample size	178
Spoiled questionnaires	10
Number of forms received	168
Incomplete forms	8
Number of useable forms	160
Response rate	94.3%

Source: (Field data, 2021)

4.2 Demographic Information

Descriptive statistics such as frequencies and percentages relating to the socio-demographic characteristics of respondents are presented in the table 4.2 below.

Table 4.2 Socio-Demographic Characteristics of Respondents

		Frequency	Percent
Gender	Male	91	56.9
	Female	69	43.1
	Total	160	100.0
Respondent's Age Group in Years	20 and below	21	13.1
	21-30	26	16.3
	31-40	55	34.4
	41-50	43	26.9
	Over 50	15	9.4
	Total	160	100.0
Highest Level of Education	K.C.SE	70	43.8
	Tertiary	53	33.1
	Bachelor Degree	30	18.8
	Masters	6	3.8
	PhD	1	0.6
	Total	160	100.0
Category of SME	Financial sector	25	15.6
	Hospitality	42	26.3
	Retail and wholesale shop	60	37.5
	Service and Repair	33	20.6
	Total	160	100
Age of Business	0-5 years	55	34.4
	6-10 years	32	20.0
	11-15 years	31	19.4
	16-20 years	24	15.0
	above 20 years	18	11.3
	Total	160	100

Source: (Field data, 2021)

More than half of the respondents (56.9%) were males and the remaining percentage of females was (43.1%). The majority of employees (34.4%) were in the economically active age group of (31 – 40 years) with only 9.4% being 50 years or more. The level of education of respondents was mostly KCSE (43.8%). The categories of SMEs showed that majority 37.5% of SMEs owners were in retail and wholesale businesses followed by 27.9% SMEs which were in service and repair business, financial sector had the least 15.6% of the SMEs in the CBD.

In relation to the age of the business, research findings revealed that majority of the SMEs 34.4% (55) have been in operation for 0-5 years, 20% (32) of the businesses have been in operation for 6-10 years, 19.4%(31) of the business have been in operation for 11-15 years, 15% (24) have operated for less than 16-20 years while the least being 11.3 % (18) of the businesses that have operated for over 20 years.

4.3 Descriptive Statistics

On a scale of 1 to 5 (1 means strongly disagree and 5 means strongly agree), SMEs owners/managers were requested to rate the extent to which technology adoption affect tax compliance among small and medium sized enterprises.

Tax compliance was rated using the following statements; “I usually pay tax”, “I have ever attempted to avoid taxes”, “I have ever delayed paying taxes”, “I have ever been penalized for tax payment failure and technology adoption has enhanced tax compliance”.

The extent at which perceived ease of use of technology affects tax compliance was measured using the following statements; “Technology use requires fewest steps possible to accomplish what I want to do in tax related issues”, “The use of technology on tax related issues is flexible”, “I can use technology without written instructions”, “

I don't notice any inconsistencies as I use technology” , and “Technology has enhanced tax compliance.”

The extent at which ICT skills affect tax compliance was measured using the following statements; “I possess adequate knowledge related to computer hardware”, “I have sufficient knowledge on computer software”, “I have knowledge on the procedures involved executing tax related activities”, “I have sufficient skills on the use of online tax system”, and “ICT user skills in this organization enhances tax compliance.”

The extent at which perceived usefulness of technology affects tax compliance was measured using the following statements; “It helps me be more effective on tax related procedure”, “It gives me more control over the activities related to tax compliance”, “It makes the activities related to tax compliance easier to be accomplished”, “It saves me time when I use it” , and “Technology use provides helpful guidance in performing tasks related to tax compliance.”

The extent at which electronic tax filing system cost affects tax compliance was measured using the following statements; “Automation of processes in the SME has enhanced efficiency in tax compliance”, “Automation of processes helps in improving accountability and transparency in tax compliance”, “There has been improvement in tax compliance since the inception of ICT support services”, and “Electronic tax filing system has enhanced tax compliance.”

The extent at which ICT Infrastructure affects tax compliance was measured using the following statements; “Infrastructure investment on ICT has enhanced tax compliance through revenue collection”, “Investment in ICT infrastructure has enhanced tax compliance through tax mobilization”, “The availability and reliability of internet connection has enhanced tax compliance”, “SME Investment in adequate ICT facilities

has facilitated tax compliance”, and “the availability of backup system to support the online tax system enhances tax compliance.”

The results of the responses from the owners of SMEs and managers are presented in table 4.3 below.

Table 4.3 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Std. Error
Tax Compliance	160	2.00	4.80	3.5025	.50606	-.285	.192	.062	.381
Perceived Ease of Use of Technology	160	1.40	4.40	3.1363	.56496	-.152	.192	-.079	.381
ICT User Skills	159	1.60	5.00	3.5761	.63937	-.222	.192	-.106	.383
Perceived Usefulness of Technology	160	2.40	4.80	3.8725	.49117	-.329	.192	-.151	.381
Electronic Filing	160	2.40	5.00	4.0775	.60396	-.684	.192	-.220	.381
ICT Infrastructure	160	2.00	5.00	3.9063	.58489	-.361	.192	-.402	.381
Valid N (listwise)	159								

Source: (Field data, 2021)

The mean score of 3.5025, 3.5761, 3.8725, 4.0775, and 3.9063 for the responses regarding; the extent of tax compliance among the SMEs, the extent at which ICT user skills affect tax compliance, the extent at which perceived usefulness of technology affect tax compliance, the extent at which electronic tax filing system cost affects tax compliance and the extent at which ICT Infrastructure affects tax compliance” suggest respondents’ agreement. However, regarding the extent to which perceived ease of use of technology affects tax compliance, there was neutrality (Mean= 3.1363), this meant that the owners/managers of SMEs weren’t sure if perceived ease of use of technology had any contribution to tax compliance among the SMEs. The results generally reveal that majority of the owners/managers of SMEs might have been aware of the

consequences associated with tax evasion hence they preferred to adhere by the law in regards to tax remittance.

4.4 Factor Analysis

Factor analysis was conducted to enable the researcher reduce many individual items in the questionnaire in to a fewer number of dimensions. Factor analysis simplifies data for easier analysis. Table 4.8 below shows the factor loading for each item as sorted by size. Any item that failed to meet the criteria of having a factor loading value greater than 0.5 was dropped from the study (Creswell, 2018). Components matrix in factor analysis showed the components matrix before rotation. The matrix contained the loading of each variable on each factor. The study requested that all loading less than 0.5 be suppressed in the output. As indicated in Table 4.4 below, the study output presented that all values for all the factors were more than 0.5 reflecting the accepted value of factor loading.

Table 4.4 Factor Analysis

R	X ₁	X ₂	X ₃	X ₄	X ₅
Technology use requires fewest steps possible to accomplish what I want to do in tax related issues	0.615				
The use of technology on tax related issues is flexible	0.602				
I can use technology without written instructions	0.573				
Technology has enhanced tax compliance	0.594				
I possess adequate knowledge related to computer hardware		0.608			
I have sufficient knowledge on computer software		0.613			
I have knowledge on the procedures involved executing tax related activities			0.697		
I have sufficient skills on the use of online tax system			0.666		
Technology gives me more control over the activities related to tax compliance			0.557		
Technology makes the activities related to tax compliance easier to be accomplished				0.597	
Technology saves me time when I use it				0.528	
Technology use provides helpful guidance in performing tasks related to tax compliance				0.806	
Automation of processes in the SME has enhanced efficiency in tax compliance					0.596
Automation of processes help in improving accountability and transparency in tax compliance					668
There has been improvement in tax compliance since the inception of ICT support services					0.704
Electronic tax filing system has enhanced tax compliance					0.535
Infrastructure investment on ICT has enhanced tax compliance through revenue collection					616
Investment in ICT infrastructure has enhanced tax compliance through tax mobilization					0.704
The availability and reliability of internet connection has enhanced tax compliance					0.619
SME investment in adequate ICT facilities has facilitated tax compliance					0.669
The availability of backup system to support the online tax system enhances tax compliance					0.806

Extraction Method: Principal Component Analysis.

Source: (Field data, 2021)

Furthermore, sampling adequacy was tested using the Kaiser- Meyer- Olkin (KMO) Measure of sampling adequacy. A cumulative variance of 66.423 of the total variation was obtained. As shown in Table 4.5 below, KMO was greater than 0.5 (0.935), and Bartlett's Test was significant, $\chi^2 (78) = 3297.692$, p-value = 0.000 < 0.001.

Table 4.5: KMO and Bartlett's Test

Total Initial Eigenvalues	% of Variance	Cumulative %
3.428	23.956	23.96
2.950	23.242	47.197
2.452	19.226	66.423
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.935	
Bartlett's Test of Sphericity Approx. Chi-Square	3297.69	

Source: (Field data, 2021)

4.5 Diagnostic Tests

Test of assumptions of simple regression are necessary to justify its use for the purposes of drawing inferences or making predictions. The assumptions tested in this study included normality, multicollinearity and linearity (Kothari, 2004).

4.5.1 Test for Normality

Normality of data is purposed to identify the shape of distribution, here it is desirable that for the normal distribution of data the values of skewness should be near 0. To identify the shape of distribution, Shapiro and Wilk and Kolmogorov-Smirnova were used (as-propounded by Shapiro & Wilk, 1965) which were calculated for each variable. The results (Table 4.6 below) from these tests showed that all the variables were not significant, p value more than 0.000, which meets the assumptions of normality. The study, therefore, concluded that the data came from a normal distribution.

Table 4.6 Test for Normality

	Shapiro-Wilk			Kolmogorov-Smirnova		
	Statistic	df	Sig.	Statistic	df	Sig.
Ease of use of technology	0.834	164	0.291	0.918	164	0.154
ICT user skills	0.874	164	0.141	0.962	164	0.089
Perceived usefulness of technology	0.853	164	0.637	0.966	164	0.083
Electronic tax filing system cost	0.816	164	0.702	0.971	164	0.133
ICT infrastructure	0.138	164	0.200	0.94	164	0.197

Source: (Field data, 2021)

4.5.2 Test for Multicollinearity

Multicollinearity means that two or more of the independent variables are highly correlated and this situation can have negative impacts on the output of multiple regressions. The correlation matrix was an important tool for getting an estimate idea of the relationship between predictors. Multicollinearity was also tested by processing regression models in Variance Inflation Factor (VIF) and tolerance values were produced. The tests (VIF & Tolerance) showed that multicollinearity problem among predictor variables is nonexistent because all the values were less than the cut-off value, as per the rule of 10 which advocates for threshold cut off 10 or ratio of 0.1 (Yamane, 1973). The VIF values shown in Table 4.7 below were below 10 while tolerance was more than 0.05, meaning that there was no multicollinearity. It is a symbol that predictor variables were not highly related. Founded on these results, the legitimacy of the regression tests in this study was undisputable.

Table 4.7: Test for Multicollinearity

	Multicollinearity Statistics	
	Tolerance	VIF
Ease of use of technology	0.977	1.023
ICT user skills	0.527	1.899
Perceived usefulness of technology	0.925	1.081
Electronic tax filing system cost	0.980	1.020
ICT infrastructure	0.529	1.890

a Dependent Variable: Tax Compliance

Source: (Field data, 2021)

4.5.3 Linearity

Linearity means the correlation between variables, which is represented by a straight line. Saunders et al. (2013) endorses that the value of correlation coefficient should range between -1 and +1. A correlation of +1.00 indicates a perfect positive correlation, while a value of -1.00 represents a perfect negative correlation, and a value of 0.00 indicates no linear relationship between variables X and Y or between the two (Saunders et al. 2013). The researcher utilized Pearson Product Moment Correlation to examine if there was a linear relationship between the dependent and independent variables. Pearson Correlations results in Table 4.8 below showed that Ease of use of technology was positively and significantly correlated to tax compliance ($r= 0.204$, $\rho<0.01$). Thus, Ease of use of technology had 20.4% positive relationship with tax compliance. ICT user skills was the second element to be positively related with tax compliance ($r = .208$, $\rho<0.01$) an indication that ICT user skills had 20.8% significant positive relationship with tax compliance. Usefulness of technology was also positively and significantly associated with tax compliance as shown by $r = 0.221$, $\rho<0.01$ implying that usefulness of technology had 22.1% positive relationship with tax compliance. Electronic tax filing system cost was positively correlated with tax compliance ($r = 0.231$, $\rho<0.01$). Electronic tax filing system cost had 23.1% significant positive relationship with tax compliance. ICT infrastructure positively correlated with

tax compliance ($r = 0.310$, $p < 0.01$). Hence electronic tax filing system cost had 31.0% significant positive relationship with tax compliance. The outcome provided adequate evidence to suggest that there was linear relationship between perceived ease of use of technology, ICT user skills, usefulness of technology, electronic tax filing system cost and ICT infrastructure with tax compliance.

Table 4.8 Correlation Statistics

	Tax Compliance	Perceived Ease of Use	ICT user skills	Usefulness of technology	Electronic tax filing system cost	ICT infrastructure
Tax compliance	1					
Perceived ease of use of technology	.204**	1				
ICT user skills	.208**	-.023	1			
Perceived usefulness of technology	.221**	-.031	.189*	1		
Electronic tax filing system cost	.231**	.054	.121	.082	1	
ICT infrastructure	.310**	-.062	.272**	.214**	.534**	1

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

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

Source: (Field data, 2021)

4.6 Model Summary

Table 4.9 below illustrates the model summary of multiple regression model, the results showed that all the five variables (perceived ease of use of technology, ICT user skills, usefulness of technology, electronic tax filing system cost and ICT infrastructure) explained 16.0 % variation of tax compliance. This showed that considering the five study independent variables, there is a probability of predicting tax compliance by 18.6% ($R^2 = 0.186$).

Table 4.9 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.432 ^a	0.186	0.160	0.46391	1.204

a) Predictors: (Constant), Perceived ease of use of technology, ICT user skills, Perceived usefulness of technology, Electronic tax filing system cost, ICT infrastructure.

b) Dependent Variable: Tax Compliance

Source, (field data, 2021)

4.7 ANOVA Model

Study findings in ANOVA Table 4.10 below indicate that the above discussed coefficients of determination are significant as evidence of F ratio of 7.004 with p value $0.000 < 0.05$ (level of significance). Thus, the model was fit to predict tax compliance using ease of use of technology, ICT user skills, usefulness of technology, electronic tax filing system cost and ICT infrastructure.

Table 4.10 ANOVA Model

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.537	5	1.507	7.004	.000 ^b
	Residual	32.928	153	.215		
	Total	40.465	158			

a) Predictors: (Constant), Perceived ease of use of technology, ICT user skills, Perceived usefulness of technology, Electronic tax filing system cost, ICT infrastructure.

b) Dependent Variable: Tax Compliance

Source: (Field data, 2021)

4.8 Hypothesis Testing

Hypothesis 1 (H_{01}) revealed that there is positive relationship between perceived ease of use of technology and tax compliance. According to Table 4.11 below, findings showed that ease of use of technology had coefficients of estimate which was significant basing on $\beta_1 = 0.222$ (p-value = $0.003 < \alpha = 0.05$) implying that we reject the null hypothesis stating that there is no significant relationship between ease of use of

technology and tax compliance. This implies that for an increase in each unit of ease of use of technology, there was 0.222 units increase in tax compliance.

Hypothesis 2 (H_{02}) stated that there is no relationship between ICT user skills and tax compliance. Findings showed that ICT user skills had coefficients of estimate which was not significant basing on $\beta_2 = -0.117$ (p-value = 0.127 which is more than $\alpha = 0.05$) indicating insignificance between ICT user skills and tax compliance, this implies that we uphold the null hypothesis stating that there is no significant relationship between ICT user skills and tax compliance. This indicates that an increase in ICT user skills did not result in any increase in tax compliance.

Hypothesis 3 (H_{03}) postulated that there is no relationship between perceived usefulness of technology and tax compliance. Findings showed that usefulness of technology had coefficients of estimate which was significant basing on $\beta_3 = 0.156$ (p-value = 0.041 < $\alpha = 0.05$) implying that we reject the null hypothesis stating that there is no significant relationship between usefulness of technology and tax compliance. This indicates that for an increase in each unit of usefulness of technology, there was 0.156 units increase in tax compliance.

Hypothesis 4 (H_{04}) stated that there is no relationship between electronic tax filing system cost and tax compliance. Findings showed that electronic tax filing system cost had coefficients of estimate which was insignificant basing on $\beta_4 = -0.079$ (p-value = 0.365 which is more than $\alpha = 0.05$), this implies that we uphold the null hypothesis that there is no significant relationship between electronic tax filing system cost and tax compliance. This implies that an increase in electronic tax filing system cost did not result in any increase in tax compliance.

Hypothesis 5 (H_{05}) postulated that there is no relationship between ICT infrastructure and tax compliance. Findings showed that ICT infrastructure had coefficients of estimate which was significant basing on $\beta_5 = 0.209$ (p-value = 0.023 which is less than $\alpha = 0.05$) implying that we reject the null hypothesis stating that there is no significant relationship between ICT infrastructure and tax compliance. This indicates that for each unit increase in ICT infrastructure, there is up to 0.209 units increase in tax compliance.

Table 4.11 Coefficient of Estimate

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	.953	.448		2.127	.035
Ease of use of technology	.198	.066	.222	3.018	.003
ICT user skills	.093	.061	-.117	1.534	.127
Perceived usefulness of technology	.160	.078	.156	2.067	.040
Electronic tax filing system cost on	.066	.073	-.079	.909	.365
ICT infrastructure	.181	.079	.209	2.298	.023

a Dependent Variable: Tax Compliance

Source: (Field data, 2021)

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter offers the summary of the results from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study.

5.2 Summary

The drive of this study was to establish the effect of technology adoption on tax compliance among small and medium enterprises in Eldoret CBD. The study adopted an explanatory research design and yielded quantitative research. The target population for the study consisted of SME's owners/managers in Eldoret CBD which is in Uasin Gishu County. The study made use of a sample of 178 owners/managers selected from the target population. Data was analyzed using descriptive and inferential statistics. The study also made interpretation on the hypothesis that perceived ease of use of technology, ICT user skills, perceived usefulness of technology, electronic tax filing system cost and ICT infrastructure had no significant effect on tax compliance.

5.2.1 Perceived Ease of Use of Technology and Tax Compliance

The results of the study indicate that ease of use of technology had a positive effect on tax compliance basing on $\beta_1 = 0.222$ (p-value = 0.003 which is less than $\alpha = 0.05$). The findings are similar with those of Munyoro et al (2018) who also found out that iTax system particularly processing of VAT taxpayers using iTax, filling of VAT returns online, and tracing VAT tax defaulters had a positive and significant effect on the tax compliance of the SMEs. The results also concurs with those of Ozuru et al (2010), who found out that ease of use of technology brings about accessibility, transparency, security, time management, cost efficiency, taxpayer confidentiality and security,

elimination of error notices from the tax administrations by data entry errors and improves data quality which lead to enhanced tax compliance.

However, the findings contradicted those of Batz et al (1999) who found out that the past process of technology adoption was significantly influenced by relative difficulty and risk of the technologies on its adoption. The study further found out that Meru farmers were less educated and inadequate labor making them reluctant to adopt complex technologies which had led to deteriorated tax compliance.

5.2.2 ICT user skills and Tax Compliance

ICT user skills were reported to impact negatively on tax compliance basing on $\beta_2 = 0.117$ (p-value = 0.127 which is more than $\alpha = 0.05$). The findings of this study echoed those of Ndiege et al (2012), who found out adverse impact of ICT on the SMEs' tax compliance, Ndiege et al further established that, very few functional units within the SMEs made use of ICT indicating very low level of intra diffusion of ICT within the SMEs. The findings however conflict those of Dowe (2008) who established that ICT Skills had contributed immensely in tax compliance in developing countries. Similarly, the findings contradicted those of Lunani et al (2019) who found out a positive correlation on ICT facilities and tax compliance in SMEs.

5.2.3 Perceived Usefulness of Technology and Tax Compliance

Usefulness of technology was found to affect tax compliance positively basing on $\beta_3 = 0.156$ (p-value = 0.040 which is less than $\alpha = 0.05$). These findings conforms with those of Mandola (2013) who found out that usefulness of technology contributed immensely to tax compliance among SMEs; according to Mandola (2013), due to usefulness of technology, taxpayers were able to escape the troubles of going to the tax office and making long queues, because the returns are filed at their convenience. The findings

also reiterate those of Halim et al (2015) who established that as a result of usefulness of technology in Philippines, the online tax system had expedite tax assessment and service delivery as the waiting duration for taxpayers for information on individuals account had been reduced from about four hours to only three minutes, this had in turn increased tax revenue collection especially in property tax related enterprises.

The findings however, counters those of Oseni (2015) who found out that usefulness of technology did not contribute to tax compliance, his further findings noted that, the use of ICT can be catastrophic if negligently employed by both the tax payers and the tax administrators as scammers and hackers of the internet facilities can take advantage the ignorance or the lax security of the system.

5.2.4 Electronic Tax Filing System Cost and Tax Compliance

It was further established that electronic tax filing system cost has a negative significant effect on tax compliance basing on $\beta_4 = 0.079$ (p-value = 0.365 which is more than $\alpha = 0.05$). These findings are in line with those of Odongo (2014), who noticed that the degree of tax compliance among the SMEs in Uganda were very low despite the low cost of electronic tax filing system. The findings also corroborate those of Livoi (2017) who deduced that corporate tax compliance was very low despite the existence of electronic tax filing system. The findings however are inconsistent with those of Musyoka (2019) who demonstrated that online registration, filing and payments had a significant positive effect on tax compliance of the small taxpayers in East of Nairobi Tax District.

5.2.5 ICT Infrastructure and Tax Compliance

The study findings also indicate that ICT Infrastructure had a positive significant effect on tax compliance basing on $\beta_5 = 0.209$ (p-value = 0.023 which is less than $\alpha = 0.05$).

The results are consistent with those of Holniker (2005), who established that infrastructure investment on ICT had brought about a significant improvement in the revenue collection for taxpayers in Nairobi county. The results also echoed those of Sani (2009) who demonstrated a strong positive relation between ICT infrastructure and tax compliance in SMEs. The results are however, inconsistent with those of Andarias (2006), whose findings showed that ICT infrastructure did not influence tax compliance in developing countries.

5.3 Conclusion

In light of the study findings, perceived ease of use of technology had a positive effect on tax compliance; this implied rejection of the null hypothesis which stated that there is no significant relationship between ease of use of technology and tax compliance. This meant that the managers/owners found it easy to use technology and associated it with flexibility and consistency. The second variable that was found to influence the outcome variable positively was perceived usefulness of technology. The results contradicted the null hypotheses which stated that there is no significant relationship between usefulness of technology and tax compliance. This by extension meant that, the availability of technology related to tax related activities enabled the SMEs to derive usefulness out of it. Hence, the usefulness of technology guaranteed them; effectiveness on tax compliance, control over the activities related to tax compliance, simplicity in carrying out tax related activities, efficiency in tax activities and helpful guidance in performing tasks related to tax compliance.

The third variable that also indicated positive association with tax compliance was ICT infrastructure. The results of this variable too conflicted the null hypotheses which stated that there is no significant relationship between ICT infrastructure and tax

compliance. It therefore meant that, ICT infrastructure had enhanced revenue collection, tax mobilization and internet connection. Contrary, ICT user skills had a negative effect on tax compliance. This by extension meant that, despite the availability of ICT skills related to tax activities, the SMEs did not derive any usefulness out it in relation to tax compliance. Hence, ICT skills could not enhance tax compliance in the SMEs. Hence, the results confirmed the null hypothesis which stated that there is no significant relationship between ICT user skills and tax compliance. Lastly, electronic tax filing system cost was also found to negatively affect tax compliance; specifically, automation of processes in the SME had not enhanced efficiency in tax compliance nor enhanced accountability and transparency in tax compliance related activities; ICT support services were also found not to have contributed to tax compliance in the SMEs. Thus, the results confirmed the null hypothesis which stated that there is no significant relationship between electronic tax filing system and tax compliance.

Thus, among the five components of technology adoption (perceived ease of use of technology, ICT user skills, perceived usefulness of technology, electronic tax filing system cost and ICT infrastructure), three components namely; perceived ease of use of technology, perceived usefulness of technology and ICT infrastructure had a positive impact on tax compliance. Whereas, two components namely; ICT skills and electronic tax filing system cost had a negative effect on tax compliance.

5.4 Recommendations of the Study

Based on the study findings, the researcher provides the following recommendations.

- i. That adequate measures related to technology are availed to the SMEs in Eldoret CBD and the country at large.

- ii. SMEs need to develop policies that guide the on technology adoption that will guide them in relation to tax compliance related procedures.
- iii. There should be availability computer hardware, relevant tax application softwares such as iTAX coupled with steady internet connection will greatly contribute to tax compliance in the enterprises.
- iv. The relevant components of infrastructure suggested should be made accessible to the SMEs through the auspices of the owners and managers concerned.
- v. The researcher thus recommends that; regular training of owners/managers of the SMEs in relation to the use of technology in tax related activities.
- vi. The government through Kenya Revenue Authority should also consider sensitizing the SMEs in regards to the need to meet obligations related to tax compliance. The sensitization should include the penalties associated with failure to remit required tax in time.

5.5 Recommendation for Further Research

This study main objective was to determine Effect of technology adoption on tax compliance among small and medium enterprises in Eldoret Central Business Unit (CBD). From the findings, the study was limited to technology adoption indicators. Thus, more research and studies should be carried out to determine other factors that could affect tax compliance other than the ones mentioned e.g. legal requirements, natural pandemics such as Corona virus, enterprise location and the viability of the enterprises. This would enable the researchers and concerned parties to mitigate and manage the factors hence enhancing tax compliance and the general performance of the SMEs. Furthermore, conducting a replication study in other major towns such as Kisumu is also needed to supplement findings in this study.

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APPENDICES

Appendix I: Questionnaire

Dear respondent,

My name is **Nancy Chepngetich Tanui**, a student at Moi University pursuing a degree of Master of Business Management. As part of the requirements for the award of the degree, I am required to undertake a research entitled “*Effect of technology adoption on tax compliance among small and medium enterprises in Eldoret Central Business Unit (CBD)*”. I humbly requesting you to spare a few minutes off your schedule to complete the attached questionnaire. Your input by filling this questionnaire is not only critical to the study but also highly appreciated. All the information received will be handled with confidentiality and will only be used for academic purposes. You are also informed that you will answer the question on free will and you can withdraw at any point. You are also advised not to write your name on the questionnaire.

Thank you in advance.

Yours sincerely,

Nancy Chepngetich Tanui,

Section A: Socio-Demographic Characteristics of Respondents

Where options are given, indicate your selection by ticking in the space provided.

Otherwise, write out your full response after each query.

- 1. Gender:** Male Female
- 2. Respondent's Age Groups (in years):** Below 20 21 to 30 31-40
41- 50 Over 50
- 3. Highest Level of Education:** K.C.S.E Tertiary Certificate/Diploma
Bachelor Degree Masters PhD Other (Specify).....
- 4. Category of SME's:** Financial sector Hospitality Retail and Wholesale
 Service and Repair Others Specify.....
- 5. Age of Business in years:** 0 – 5 6–10 11–15 16 -20 Above 20

SECTION B: Research Objectives Information

Technology adoption and tax compliance among small and medium enterprises in Eldoret Central Business District (CBD), Kenya

On a scale of 1 to 5 (1 means strongly disagree and 5 means strongly agree) express the extent to which you agree or disagree with the following statements as concerns your SME.

I. Tax Compliance

1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree

No.	Tax Compliance	1	2	3	4	5
1.	I usually pay tax					
2.	I have ever attempted to avoid taxes					
3.	I have ever delayed paying taxes					
4.	I have ever been penalized for tax payment failure					
5.	Technology adoption has enhanced tax compliance					

II. Perceived Ease of Use of Technology

Strongly Disagree 2= **Disagree** 3= **Neutral** 4= **Agree** 5= **Strongly Agree**

No.	Ease of Use	1	2	3	4	5
1.	Technology use requires fewest steps possible to accomplish what I want to do in tax related issues					
2.	The use of technology on tax related issues is flexible					
3.	I can use technology without written instructions					
4.	I don't notice any inconsistencies as I use technology					
5	Technology has enhanced tax compliance					

III: ICT User Skills

Strongly Disagree 2= **Disagree** 3= **Neutral** 4= **Agree** 5= **Strongly Agree**

No.	ICT User Skills	1	2	3	4	5
1.	I possess adequate knowledge related to computer hardware					
2.	I have sufficient knowledge on computer software					
3.	I have knowledge on the procedures involved executing tax related activities					
4.	I have sufficient skills on the use of online tax system					
5.	ICT user skills in this organization enhances tax compliance					

IV: Perceived Usefulness of Technology

Strongly Disagree 2= **Disagree** 3= **Neutral** 4= **Agree** 5= **Strongly Agree**

No.	Usefulness of Technology	1	2	3	4	5
1.	Technology helps me be more effective on tax related procedure					
2.	Technology gives me more control over the activities related to tax compliance					
3.	Technology makes the activities related to tax compliance easier to be accomplished					
4.	Technology saves me time when I use it					

5.	Technology use provides helpful guidance in performing tasks related to tax compliance					
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V: Electronic Tax Filing System Cost

Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly

Agree

No.	Electronic Tax Filing System Cost	1	2	3	4	5
1.	Automation of processes in the SME has enhanced efficiency in tax compliance					
2.	Automation of processes help in improving accountability and transparency in tax compliance					
3.	There has been improvement in tax compliance since the inception of ICT support services					
4.	Electronic tax filing system has enhanced tax compliance.					

VI: ICT Infrastructure

Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly

Agree

No.	ICT Infrastructure	1	2	3	4	5
1.	Infrastructure investment on ICT has enhanced tax compliance through revenue collection					
2.	Investment in ICT infrastructure has enhanced tax compliance through tax mobilization					
3.	The availability and reliability of internet connection has enhanced tax compliance					
4.	SME Investment in adequate ICT facilities has facilitated tax compliance					
5.	The availability of backup system to support the online tax system enhances tax compliance					

Appendix II: Moi University Introductory Letter



MOI UNIVERSITY
POSTGRADUATE OFFICE
SCHOOL OF BUSINESS AND ECONOMICS

Tel: 0790940508
 0771336914
 0736138770
 Fax No: (053) 43047
 Telex No. MOIVARSITY 35047

P.O. Box 3900
 Eldoret.
 Kenya

RE: MU/SBE/PGR/ACD/21B

DATE: 28th March, 2021

TO WHOM IT MAY CONCERN:


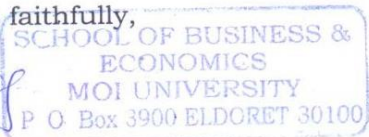
RE: TANUI NANCY CHEPNGETICH-SBE/PGM/045/13

The above named is a bonafide student of Moi University School of Business and Economics, undertaking **Master of Business Management** degree; specializing in **Accounting**.

She has successfully completed the coursework, defended her proposal, and is proceeding to the field to collect data for his research titled: "**Effect of Technology Adoption on Tax Compliance Among Small and Medium Enterprises in Uasin Gishu County**"

Any assistance accorded to her will be highly appreciated.

Yours faithfully,


 

DR. RONALD BONUKE
POSTGRADUATE CHAIR, SB&E

/pm


Appendix III: NACOSTI Research License

National Commission for Science, Technology and Innovation



REPUBLIC OF KENYA
National Commission for Science, Technology and Innovation


Ref No: 820631



**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Date of Issue: 02/June/2022

RESEARCH LICENSE




This is to Certify that Ms. NANCY CHEPNGETICH TANUI of Moi University, has been licensed to conduct research in Uasin-Gishu on the topic: EFFECTS OF TECHNOLOGY ADOPTION ON TAX COMPLIANCE AMONG SMALL AND MEDIUM ENTERPRISES IN UASIN GISGU COUNTY, KENYA for the period ending : 02/June/2023.

License No: NACOSTIP/22/18042

Applicant Identification Number: 820631


Director General



Director General

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