

**EFFECT OF TAXPAYERS PERCEPTION TOWARDS E-FILING SYSTEM
ON TAX COMPLIANCE AMONG SMALL AND MEDIUM ENTERPRISES IN
KAKAMEGA COUNTY, KENYA**

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**A thesis Submitted in Partial Fulfillment of the Requirements for the Award of the
Degree of Masters of Business Administration (Finance) of Masinde Muliro
University of Science and Technology**

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DEDICATION

I dedicate this work to my spouse Elizabeth Waswa and family members for encouragement and support during my study. I also dedicate to my course mates for teamwork and support.

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ABSTRACT

Around the world, many tax agencies that are adopting electronic tax administration systems continue to face significant challenges due to taxpayer opposition, underutilization, and reluctance to use electronic filing systems. This study aimed to investigate the impact of taxpayers' perceptions of the E-filing system on Small and Medium Enterprises' tax compliance within Kakamega County. Specifically, it aimed to assess how the perceived usefulness, perceived ease of use of the E-filing, perceived risks, and training and educational programs towards e-filing system influence tax compliance among SMEs in the county. The study adopted descriptive research design and the target population was 2,272 Small and Medium Enterprises within Kakamega County. The sample size of 340 was determined. Data was collected through structured questionnaires comprising both open-ended and close-ended questions. The validity and reliability of instruments was established through conducting a pilot study. The questionnaires gave Cronbach alpha coefficients of α above 0.7, an indication of a high level of reliability. The collected data was then coded and analyzed using the SPSS version 28 computer program. Data was analyzed using descriptive statistics such as frequencies, percentages, means, and standard deviations and inferential statistics such as correlation analysis, multiple regression analysis, analysis of variance and hypothesis testing. Multiple regression analysis results showed that taxpayers' perception towards e-filing system significantly influenced tax compliance amongst SMEs. From the results, the corrected R-square value of 0.329 implied that the model explains 32.9% of tax compliance through predictor factors such as perceived usefulness, perceived ease of use, perceived risks, and training and educational programs. The hypothesis testing results showed that perceived usefulness of the E-filing system, perceived ease of use of the E-filing system, perceived risk of using the E-filing system, and training and education programs for E-filing systems significantly affects tax compliance. From the study findings, we concluded that Perceived usefulness of the e-filing system was found to have a significant positive effect on tax compliance which suggests that when taxpayers perceive the e-filing system as useful, they are more likely to comply with tax regulations. Additionally, Perceived ease of use also showed a significant positive effect on tax compliance which indicates that the simpler and more user-friendly the e-filing system is perceived to be, the higher the likelihood of tax compliance. Interestingly, perceived risks were positively associated with tax compliance which suggests that awareness of potential risks or penalties associated with non-compliance encourages taxpayers to adhere to tax regulations. Finally, Training and educational programs related to the e-filing system was found to significantly influence tax compliance which underscores the importance of providing adequate training and information to taxpayers to facilitate the effective use of the e-filing system. These findings imply that Management should invest in comprehensive training programs and workshops to equip taxpayers with the necessary knowledge and skills to use the e-filing system. Based on the study's findings, conclusions, and recommendations, it is suggested that additional research be performed to better understand the psychological and behavioural aspects that influence SMEs' adoption and consistent usage of e-filing systems. Such a study may look into how characteristics like trust in government institutions and perceived fairness of the tax system affect e-filing uptake.

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LIST OF ACRONYMS

ATT	Attitude
AU	Actual Use
BI	Behavioral intentions
VAT	Value Added Tax
GDP	Gross Domestic Product
IQ	Information Quality
KRA	Kenya Revenue Authority
PEOU	Perceived Ease Of Use
PU	Perceived Usefulness
PC	Perceived Credibility
SMEs	Small and Medium Enterprises
TAM	Technology Acceptance Model
TGK	Tax General Knowledge
VAT	Value Added Tax

OPERATIONAL DEFINITION OF TERMS

Tax Compliance: Denotes the degree to which taxpayers abide by tax laws and regulations by correctly reporting their income, deductions, and liabilities, and paying the correct amount of taxes. In this study tax compliance will be used to refer to how the SMEs comply with tax regulations and obligations.

Non-Compliance: Refers to actions or behaviors where taxpayers fail to comply with tax laws, which may include underreporting income, overstating deductions, or not filing tax returns. In this study non-compliance will be used to refer to how the SMEs fail to comply with tax regulations and obligations.

Taxpayers: Are individuals or entities who are legally obligated to pay taxes to the government based on their income, transactions, or property ownership. In these study tax payers refers to SMES.

Perceived Ease of Use: Refers to the perception of how effortless it is for taxpayers to use the E-filing system for tax purposes. In this study, perceived ease of use is the ability for SMEs to use e-filing system effortlessly.

Perceived Usefulness: Relates to taxpayers' beliefs about the benefits and advantages of using the E-filing system for tax compliance. In this study, perceived usefulness is the perception the SMEs have towards the e-filing system.

Perceived Risks of Use: Are the perceived potential drawbacks or uncertainties associated with using the E-filing system, such as security concerns or technical issues. In this study, perceived risks of use of e-filing system refer to the uncertainties that SMEs have when using the e-filing tax system.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globally, revenue collection is the foundation for the health of an economy (Malima, 2017). To maintain infrastructure, administrative functions, and service delivery, governments require funding (Komanya, 2017). According to Dowe, there is little doubt that greater use of technology has enhanced tax administration, compliance, and services for taxpayers.

Every government's goal is to have all of its constituents pay their taxes without difficulty or complaints. But until the advent of contemporary information technology, which has made the process simpler, it has never been easy. Improvements in system fiscal administration have been indicated by the growth of tax compliance (Teltscher, 2020). Tax compliance is primarily attained when the majority of taxpayers without the assistance of the tax authorities through enforcement, voluntarily submit their tax returns and pay the resulting tax responsibilities as specified by the tax rules. On the other hand, enforcement actions like audits and collections are used if voluntary compliance is poor.

While filing offers benefits to taxpayers, not all taxpayers make use of this system. According to Lai, Obid, and Meera (2021), it is difficult for all stakeholders to embrace the growth of e-Filing, particularly for lay taxpayers. Tax professionals are therefore necessary. The effectiveness of e-Filing is significantly impacted by the role of tax practitioners. Tax authorities are using e-government led solutions, such as electronic tax filing, or e-filing, to address this difficulty (Amitabh et al., 2021). ICT is currently widely used in business and tax environments. Notably, electronic tax administration systems are

being used by tax authorities all over the world to communicate with the taxpaying public in situations related to compliance, administration, and collection of taxes.

Both industrialized and developing nations are paying more and more attention to the use of technology to increase tax compliance, broaden taxpayer services, and improve the efficiency of tax administration (Dowe, 2021). The swift advancement of technology will have a noteworthy influence on tax compliance, both directly and indirectly, in a favorable and unfavorable manner. Information technology, such as computers and communication systems, is expected to greatly improve tax procedures, save money and time, and provide better service to customers. However, technical advancements have varying effects on the human element; for example, some people find their occupations to be more vital than others, and for others they pose a threat (Lee et al., 2022). To effectively manage a modern tax administration, all tax information systems and databases should be integrated and equipped with the tools needed to combat tax non-compliance, facilitate tax compliance, and meet information requirements at the operational and internal control levels. Currently, tax authorities electronically gather data regarding tax payments and returns using a number of methods. An increasing number of administrative duties are being completed electronically, including company tax registration and name and location changes for individuals and companies.

Ramayah et al. (2023) reported that several developed countries have recently adopted electronic filing systems for taxes, including Australia, Canada, Italy, the United Kingdom, Chile, Ireland, France, the Netherlands, Germany, Finland, Sweden, Switzerland, Norway, Singapore, Brazil, Mexico, India, China, Thailand, Malaysia, and Turkey. Moreover, the practice of electronic filing has been embraced by developing

countries as well. Muita (2019) identified Uganda, Nigeria, Rwanda, and Kenya among the developing nations that have implemented electronic tax filing systems.

Making it easier for taxpayers to meet their regular revenue requirements without having to visit the tax office is the main objective of electronic filing. Tax compliance has long been a source of anxiety for politicians, tax administrators, and the general public. Tax compliance significantly influences revenue collection and the government's capacity to fulfill its budgetary and social objectives, as noted by Tan and Sawyer (2020). Improving taxpayer services to enhance long-term outcomes, such as increased tax collection and reduced tax gaps, is a key strategy to bolster compliance. Consequently, many countries aim to reform their tax systems to promote voluntary compliance, with digital filing systems being one avenue to achieve this goal, as highlighted by Khadijah (2017).

Following the introduction of electronic tax return filing, a study conducted in India by Ojha et al. (2023) revealed that, despite significant system investment made by the Malaysian Tax Authority, only 40% of the targeted taxpayers were able to file their returns electronically, with the majority still using paper returns. According to a report released in 2023 by the Research and Policy Department of the Kenya Revenue Authority (KRA), of the approximately 5,000 taxpayers classified as Medium and Large, only 40% had registered as online users by the end of 2019, and only 10% of this group consistently filed taxes using the KRA online system. The majority of KRA employees, who were told to utilize the internet exclusively for their individual annual tax filings, were the only small taxpayers whose use of the internet for tax returns was considered insignificant in the report.

Tax compliance is primarily attained when the majority of taxpayers, without the assistance of the tax authorities through enforcement, voluntarily submit their tax returns and pay the resulting tax responsibilities as specified by the tax rules. On the other hand, enforcement actions like audits and collections are used if voluntary compliance is poor. Numerous reviews have been conducted on tax compliance (Andreoni et al., 1998; Cuccia, 1994; Kinsey, 2020). The degree of tax compliance has been explained and measured using three theoretical vantage points: inertia models, economic models, norms of compliance models, and uncertainty models (Picur et al., 2023).

According to the Organisation for Economic Co-operation and Development (2021), small business owners bear the responsibility of both collecting and remitting taxes, as stated by Christensen et al. (2001). As a result, they are significant actors in a nation's tax system. Worldwide tax authorities have categorized taxpayers into three categories: small, medium, and large (Terkper, 2020). The classification is based on many factors like as complexity, turnover, and other particular classifications according to individual tax authorities. The historically "hard-to-tax" group, which may also include huge enterprises like retail stores and commercial farms, is made up of small and medium-sized taxpayers. Recent reforms in taxation in emerging economies have led to the categorization of large entities within a large taxpayer unit (LTU), while medium entities are often treated akin to VAT-registered taxpayers, operating outside LTUs. Consequently, small taxpayers are generally presumed to fall below VAT registration thresholds by default. Typically organized within the formal sector, medium taxpayers are adept at maintaining records in accordance with company or tax regulations. Small taxpayers, on the other hand, are primarily classified as informal entities. They lack

organization and could really struggle to maintain sufficient documentation, especially when it comes to completing tax returns electronically (Picur et al., 2023).

Cobham (2022) claims that many nations, particularly developing ones, have struggled with tax compliance. This is based on the GDP to tax ratio for the nation, yet over time, as the economy has grown, the numbers have improved. The developing or low-income countries continue to face significant challenges in tax collection, leading them to implement drastic reforms. According to Jantsch et al. (2023), some of the nations that have benefited greatly from these adjustments are Spain, Uruguay, Bolivia, Jamaica, and Columbia.

In Africa, particularly in Nigeria, SMEs contribute to economic growth but face challenges in tax compliance due to the perception of the tax system as burdensome and inefficient (Adebisi & Gbegi, 2013). Similarly, in South Africa, despite the efforts to simplify tax processes, compliance remains a concern among SMEs, partly due to the perceived complexity and cost of compliance (Smulders & Stiglingh, 2008). In Ghana, tax compliance among SMEs is influenced by their perception of the tax authorities and the perceived fairness and transparency of the tax system (Atawodi & Ojeka, 2012). In Uganda, tax compliance is hampered by a lack of understanding of tax obligations and the perceived lack of benefits from paying taxes (Mutebi, 2019). In Tanzania, the compliance levels are affected by the perceived complexity and inefficiency of the tax system (Nakiwala, 2010).

The adoption of electronic filing (e-filing) systems has been promoted as a way to improve tax compliance by simplifying the filing process and making it more accessible. E-filing systems are designed to reduce the time and cost associated with tax compliance,

increase accuracy in tax filing, and enhance the efficiency of tax administration (Muita, 2011).

Nigeria has also implemented e-tax systems to improve compliance among SMEs. Studies indicate that while e-filing can simplify tax processes, its adoption is often hindered by poor internet connectivity and a lack of technical skills among taxpayers (Adebisi & Gbegi, 2013). In South Africa, the South African Revenue Service (SARS) has employed e-filing systems to enhance tax compliance, but the uptake among SMEs has been influenced by the perceived ease of use and the trust in the system (Smulders & Stiglingh, 2008).

Ghana introduced the Ghana Revenue Authority Integrated Tax Application Preparation System (iTAPS), which has shown promise in improving compliance but faces challenges related to user awareness and technological infrastructure (Atawodi&Ojeka, 2012). In Uganda, the Uganda Revenue Authority (URA) launched an e-tax system aimed at simplifying tax processes and improving compliance among SMEs. However, its success is contingent on addressing taxpayers' concerns regarding system reliability and user-friendliness (Mutebi, 2019). In Tanzania, the Tanzania Revenue Authority (TRA) has also adopted e-filing systems, but the impact on compliance has been mixed, with issues of accessibility and taxpayer education being critical (Nakiwala, 2010).

Based on GDP, tax evasion is a major issue in Tanzania, Kenya, and Uganda, the three East African countries. These nations are suffering greatly as a result of tax evasion; in 2019, Kenya lost more than \$2 billion, Tanzania lost 1.6 billion, and Uganda lost 850 million. In Kenya, the informal economy accounts for roughly 7% of overall government spending and produces roughly 33% of the country's GDP. Reducing tax evasion in the

unorganized sector of the economy is necessary for the government to raise social expenditures (Griffiths, 2022).

Tax compliance remains a significant challenge in many African countries, including Kenya. Small and Medium Enterprises (SMEs), which form a substantial part of the economy, often struggle with tax compliance due to various factors, including complex tax procedures, lack of awareness, and limited access to reliable tax information. In Kenya, the informal sector, where many SMEs operate, contributes significantly to the economy but also presents challenges in tax administration and compliance (Waweru, 2018).

In Kenya, the Kenya Revenue Authority (KRA) introduced the iTax system to streamline tax processes and enhance compliance. The system allows taxpayers to register, file returns, and pay taxes online. Despite its potential benefits, the effectiveness of the e-filing system largely depends on taxpayers' perceptions of its usability, reliability, and the perceived benefits of compliance (Nguyen, 2020).

Ouko (2019) points out that in Kenya, people who register and obtain a Personal Identification Number (PIN) are theoretically considered small taxpayers. This broad classification includes, but is not limited to, workers and students who are required to register with a PIN for higher education assistance. Prior to the Finance Bill of 2023, which introduced Turn Over Tax (TOT), small taxpayers in Kenya would voluntarily register as taxpayers. This pushed small taxpayers into the tax bracket. Improving tax collection, compliance with filing tax returns, and increasing the number of taxpayers in the tax bracket through taxpayer recruiting and registration are a few ways to achieve this goal. Since 2020, KRA has made significant investments in technology to improve tax

compliance. In order to do this, KRA divided its taxpayers into three categories: small, medium, and large. For each group, a separate tax department was established (KRA, 2019). In Kenya, electronic filing was first made available to all categories of income tax payers in 2018 on a voluntary basis using an online platform known as KRA Online. However, in order to make it easier for taxpayers to e-file their tax returns and send taxes when they become due, a new online system named iTax was implemented in 2017. In Nairobi's east, the most small-scale taxpayers work in the unstructured (Jua kali) sector. According to Kamleitner et al. (2019), attributes of this taxpayer group include low business employee turnover, small capital, unspecialized merchandise, a sole employee framework (the proprietor usually runs the business with one or two assistants), insufficient record keeping, and general failure to comply with tax laws. The iTax electronic filing system has been introduced by the Kenya Revenue Authority. A taxpayer can register, file tax returns, make payments (via tax e-slips), examine their ledger record, apply for and receive tax refunds, apply for and get Tax Compliance Certificates (TCCs) by email, and even follow up on KRA audit issues using this system. The majority of Kenyan taxpayers are classified as small taxpayers, despite the fact that the majority of those who have used this online method fall into the Medium or Large categories (KRA, 2019). To facilitate tax administration and provide taxpayers with efficient services, KRA has separated taxpayers into tax districts (KRA, 2019). Large Taxpayers Office (DTD - LTO), Medium Taxpayers Office (DTD - MTO), and Small Taxpayers Office (DTD - STO) are the three Domestic Tax Districts that exist at the moment. There are additional tax districts under the final categories.

According to a report released in 2023 by the Research and Policy Department of the Kenya Revenue Authority (KRA), of the approximately 5,000 taxpayers classified as Medium and Large, only 40% had registered as online users by the end of 2019, and only 10% of this group consistently filed taxes using the KRA online system. The majority of KRA employees, who were told to utilize the internet exclusively for their individual annual tax filings, were the only small taxpayers whose use of the internet for tax returns was considered insignificant in the report.

The Kenya Revenue Authority (KRA) seeks to improve tax compliance in Kenya by imposing severe penalties and prosecutions against tax evaders, as well as sanctions such as electronic monitoring, audits, compliance checks, investigations and company closures for people. Those who provide tips or information that can lead to tax refunds may also receive a reward. This system of penalties and rewards contributes to overall improvements in tax compliance. Despite increases in statistical collection and compliance, rental income tax compliance remains below the 18 % sub-Saharan average and the 20% global average (KRA, 2013). Kenya is recognized as one of the low-income countries, and the country's tax compliance has considerably decreased due to the difficult task of requiring creative and efficient tax.

In response to public demand, the Kenya Revenue Authority (KRA) established the Taxpayer Services Unit in April 2021 to enable KRA to support and meet the growing needs of taxpayers for improved services. Taxpayers often visit the head office of the tax inspectorate for various reasons, but the main reason is to register as a taxpayer and get information about tax matters. Therefore, tax collection agencies have an obligation to provide quality services to their clients, especially taxpayers. Tax professionals must

provide high quality services, including timeliness, urgency, accuracy, tax knowledge, satisfaction and clarity. Front line employees in revenue organizations must avoid being haughty, impolite, irritable, unresponsive, or seeming bored because their attitude plays a critical role in providing high-quality taxpayer services (Surrey, 2021). According to Drummond et al. (2023), little is known about how taxpayers in developing nations behave.

1.2 Statement of the Problem

Around the world, many tax agencies that are adopting electronic tax administration systems continue to face significant challenges due to taxpayer opposition, underutilization, and reluctance to use electronic filing systems (EATAAC, 2022). Understanding and influencing taxpayer acceptability of the electronic filing system is essential, especially in light of the possible cost savings and the investment in technology. Developing nations continue to struggle with low tax compliance and tax administration, even in the face of a rising need to enhance revenue collection and enforcement in order to deliver public services. Muita (2021) discovered that using electronic filing will result in cost and management benefits after researching the elements driving its acceptance in Kenya. It is also true that technology alone is unlikely to be effective in a context in which pre-existing, complementary factors are not yet in place (Bird and Zolt, 2008). This is also true in high income countries as failure to get these preconditions right explains the poor take-up of e-government services there as well (Gauld, Goldfinch and Horsburgh, 2010; Reddick and Turner, 2012). For instance, the usage of electronic submission and online filing and transfers are projected to lower compliance expenses for small enterprises. Based on the available empirical research, it seems that no investigation has been conducted in Kenya on the impact of taxpayers'

perceptions regarding electronic filing on small taxpayers in terms of tax compliance. Since it is a new project by the Kenya Revenue Authority and has been implemented globally, there has been a presumption that compliance will increase. Therefore, the goal of the study is to close this information gap.

1.3 Objectives of the Study

The study was guided by general objective and specific objectives as follows:

1.3.1 General objectives

This research sought to examine the effect of taxpayers' perception towards E-filing on Tax compliance system among small and medium enterprises in Kakamega County.

1.3.2. Specific objectives

The specific objectives of the study were:

- i. To evaluate the effect of perceived usefulness of E-filing system on tax compliance among SMEs in Kakamega County.
- ii. To establish the effect of perceived ease of use of E-filing system on tax compliance among SMEs in Kakamega County
- iii. To examine the effect of perceived risk of use of E-filing system on tax compliance among SMEs in Kakamega County
- iv. To assess the effect of training programmes towards E-filing system on tax compliance among SMEs in Kakamega County.

1.4 Research Hypotheses

The study was based on the following research hypotheses:

H₀₁: Perceived usefulness of the E-filing system does not have a significant effect on tax compliance among SMEs in Kakamega County.

H02: Perceived ease of use of the E-filing system does not have a significant effect on tax compliance among SMEs in Kakamega County.

H03: Perceived risk of using the E-filing system does not have a significant effect on tax compliance among SMEs in Kakamega County.

H04: Training and education programs towards E-filing system do not significantly impact tax compliance among SMEs in Kakamega County.

1.5 Significance of the Study

The study on the effect of taxpayers' perception towards the E-filing system on tax compliance among SMEs in Kakamega County, Kenya, will have significant benefits for various stakeholders:

1.5.1 Kenya Revenue Authority (KRA)

The study will provide valuable information and insights that will guide KRA in enhancing tax compliance mechanisms specifically tailored for SMEs. By understanding the factors influencing tax compliance behavior among SMEs, KRA can develop targeted strategies, implement effective literacy campaigns, and improve taxpayer education on tax laws, filing procedures, and payment deadlines ultimately will result in increased compliance in taxation rates and improved revenue collection for the government.

1.5.2 Policymakers and Academicians

Policymakers will benefit from the study's findings by gaining a deeper understanding of the structural requirements and legislative changes necessary to support SMEs effectively. This includes creating an enabling environment, providing necessary infrastructure, and implementing supportive policies that encourage SME growth while ensuring tax compliance. Academicians will also benefit from the study's insights as it

contributes to the body of knowledge on tax compliance behavior among SMEs, enabling further research and academic discourse on tax-related topics.

1.5.3. SMEs (Small and Medium Enterprises)

SMEs will benefit significantly from the study as they will gain insights into the reasons behind low tax compliance and how to address these challenges effectively. Understanding the impact of their behavior towards E-filing on tax compliance will empower SMEs to improve their tax compliance practices, comply with tax laws and regulations, and contribute more effectively to government revenue. Additionally, the study will help SMEs realize that paying taxes is not a punishment but an obligation necessary for economic development and sustainability. Improved peer attitudes towards tax compliance will foster a culture of transparency and accountability among SMEs.

1.5.4. Researchers

The findings of this study will serve as a valuable resource and knowledge reservoir for future researchers and scholars interested in tax compliance, E-filing systems, and SME taxation. It will provide a foundation for further research, benchmarking, and comparative studies in the field of tax administration and compliance behavior, contributing to the advancement of academic knowledge and best practices in tax-related research.

1.6. Scope of the Study

This study delved into Kakamega County's SMEs to understand how their behavior towards the E-filing system impacts tax compliance. Objectives included assessing the Perceived usefulness of the system, ease of use, perceived risks, and effect of training programs. The study area encompassed all 12 sub-counties of Kakamega County,

targeting 2,272 SMEs and Yamane Taro (1967) Formulae was used to obtain the sample size of 340 SMEs. Both open and closed ended questionnaire were used in this study. In this study, 34 respondents were sampled to take part in pilot test. This represented 10 percent of the sample size which is appropriate. The pilot study was conducted in Bungoma County because of its proximity to Kakamega county and similar SMEs characteristics.

1.7 Limitations of the study

The study faced several limitations, but the researcher took steps to mitigate their impact. Firstly, the reliance on self-reported data introduced the possibility of social desirability bias, which could affect response accuracy. To address this, the researcher assured participants of confidentiality and anonymity, encouraging honest responses. Secondly, the cross-sectional design limited the ability to establish causal relationships between variables. To overcome this, the study incorporated multiple regression analysis to identify significant associations and provide stronger inferential insights. Thirdly, the study was confined to SMEs in Kakamega County, limiting generalizability to other regions or larger enterprises. However, the researcher selected a diverse sample of SMEs across various sub-sectors within the county to enhance representativeness.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter presents the literature review in which previous studies that are relevant to the study on effect of taxpayers' perception towards E-filing system on tax compliance among SMEs in Kakamega County were reviewed. The chapter contains the theoretical review, the conceptual framework, the empirical review of variables, critique of reviewed literature, research gaps and summary of reviewed literature.

2.2. Theoretical framework

This section presents theories that were used to provide a theoretical background for this study. The following theories were used: Theory of Planned Behavior based on Horbj & Fishbein's (2019), Technology Acceptance Model (TAM), Theory of Acceptance Model (TAM) created Davis by(2017) and Fiscal Exchange Theory.

2.2.1. Theory of Planned Behaviour

Planned Behavior Theory (DTPB) Broken down Based on Horbj's (2018) Theory of Planned Behavior, which itself developed Fishbein and Horbj's (2019) Theory of Reasoned Action (TRA), Taylor and Todd (1995) produced Theory of Planned Behavior (DTPB). When it comes to predicting intents, DTPB and TPB are comparable. However, DTPB distinguishes between several sub-constructions based on attitudes, subjective standards, and perceived behavioral control. Taylor and Todd (1995), for instance, divided the attitude variable into three categories: perceived playfulness, perceived risk, and perceived usefulness. Furthermore, the variable of perceived behavioral control was broken down into two components: self-efficacy and the facilitating condition.

Horbj and Fishbein produced the decomposed the theory of planned behavior, that's one version of the Theory of Reasoned Action (TRA). Theory of Reasoned Action (TRA) and Theory of Planned Behavior share a common focus of an individual's desire to engage in specific behaviors. It is believed that intentions might serve as a reflection of the motivational elements influencing actions. A person's intentions reveal their level of desire to attempt something new and their level of effort when engaging in a behavior. Horbj also included perceived behavioral control as a single factor that determines behavioral intention in Theory of Planned Behavior. A person's sense of his level of control over particular behaviors is known as perceived behavioral control (Horbj, 2019). According to Horbj, this component relates to personal opinions of how simple or difficult it is to produce particular behaviors. Furthermore, it is expected that this element reflects prior encounters and expected challenges. Three factors—attitudes, subjective standards, and perceived behavioral control—can predict an individual's intentions to engage in specific activities, according to Horbj (2019). The theory of planned conduct is a prominent theory in social psychology that seeks to explain behavior in people. This theory was developed by Horbj (2018) and is essentially an improved version of the Theory of Reason Action, which was put forth by Horbj and Fishbein (2019) to explain conscious activities.

According to this theory, people's actions within a society have predefined causes, are influenced by specific situations, and emerge in a predetermined way (Erten, 2020). However, a person's motivation for participating in a certain behavior determines their capacity to carry it out. Subjective norms, perceived behavioral control, and attitude toward behavior are the components that determine the goal of the behavior (Erten,

2020). Moreover, behavioral beliefs, normative views, and control beliefs impact the factors listed above (Horbj, 2020).

This hypothesis is based on intention, whereby an individual's intention towards a behavior determines whether the behavior is performed or changes into something else. According to Horbj (2018), purpose is a factor that indicates the level of personal effort required to carry out a particular behavior. Individual norms, attitudes toward conduct, and perceived behavior controls all contribute to the explanation of intention (Klee et al. 2021). The judgments that the person executing the conduct will make about carrying out that behavior are included in their attitude. The term "subjective norm" describes the views of other people who are significant to those who will engage in the conduct or who are regarded as role models for it. Perceived behavior control, in conclusion, describes the degree of difficulty of an individual's performance. Sometimes, this component has a direct impact on the behavior. For instance, perceived behavior control can have a direct impact on conduct if it is imposed under legal punishment and does not depend on the individual's choice. The Theory of Planned action concludes by proposing that people's intentions and perceptions of control over their action affect whether or not they will carry out the behavior.

It has been noted that the majority of empirical research conducted under the Theory of Planned Behavior focuses on the activities that people report, and there aren't many studies that look at the behaviors that people actually engage in (Chang, 1998; Allen, 2021). This is a result of the time and financial costs associated with observing each person's unique actions (Erten, 2020).

Additionally, this study aims to analyze the reported behaviors of taxpayers included in the research, rather than solely observing individual behaviors related to tax compliance. Theory of planned behavior informs training and education programmes since it influences the perception of the taxpayer by providing relevant knowledge, enhancing adoption and encouraging participation or interaction of the system based on the knowledge acquired from training and education programmes.

It also informs perceived ease of use of e-filing by advocating for user friendliness which enhances familiarity of the taxpayers hence modifying their behaviour especially attitude which maybe misguided by those taxpayers who have not interacted with the system.

2.2.2 Technology of Acceptance Model

Technology Acceptance Model (TAM) drawing off from Horbj & Fishbein's (2019) TRA model, Davis (2017) created Technology Acceptance Model (TAM). The most common model in information systems research is TAM. Perceived utility and perceived ease of use applied to different settings of technology acceptance comprise the two variables of Davis's (2017) Technology Acceptance Model (TAM) (Amalia, 2019). According to this paradigm, when consumers learn about a new technology, a number of factors will influence their choices about when and how to use it. In conclusion, TAM explains how specific dimensions may have an impact on how well users accept information technology.

The model TAM was developed in the 2010s as a result of an agreement between IBM Canada and Massachusetts Institute of Technology (MIT). Its objectives were to evaluate the prospective market for novel items under the brand and to provide a description of the

factors influencing computer use (Davis; Bagozzi; Warshaw, 2020). In order to better understand why users accept or reject information technology (IT) and how to increase acceptance, Davis (2020) established the Technology Acceptance Model (TAM), which provides a framework for anticipating and explaining user adoption. In 2020, Davis performed a survey with 40 Boston University MBA students and 112 IBM users in Canada. The adoption of a software text editor served as the foundation for the TAM model's validation (Davis, 2020; SA, 2023).

Silva (2023) notes that Davis (2020) discovered that, for this sample, perceived convenience had a greater influence on behavior than perceived facility. According to Davis (2020), the TAM has the benefit of being unique to IT and having a solid theoretical foundation in addition to having a large amount of empirical backing.

The TAM model was created to explore the causal relationship between the user's acceptance of external factors and his actual computer use, attempting to interpret the user's behavior based on his perceptions of the value knowledge and use facilities (Davis, 2020). According to Davis (2020), people often utilize or don't use specific technologies in an effort to perform better at work. This is known as perceived utilization. Even though this individual is aware of the benefits of some technology, their ability to use it effectively may be compromised if it is overly complex and renders the effort unjustified relative to the apparent utility. The TAM is mainly based on these two constructs because they have comprehensively studied the influence of external factors, such as functional systems, creative processes, and training on intention to use (Davis 2020). (Dillon; Morris; Davis; Bagozzi; Warshaw, 2020; Lee et al., 2020; Venkatesh et al., 2020) The goal of this model is to illustrate how external factors related to information systems

impact an individual's internal factors, such as attitudes and usage intentions. According to Davis (2020), the two primary TAM factors are as follows: Perceived utility is the extent to which an individual thinks using a specific system will enhance his performance. The degree to which someone thinks using an information system would be effortless is known as the facility of perceived use. The information displayed in the diagram implies that people will utilize a particular piece of technology if they think utilizing it would have a beneficial impact, with a focus on perceived usefulness and simplicity of use.

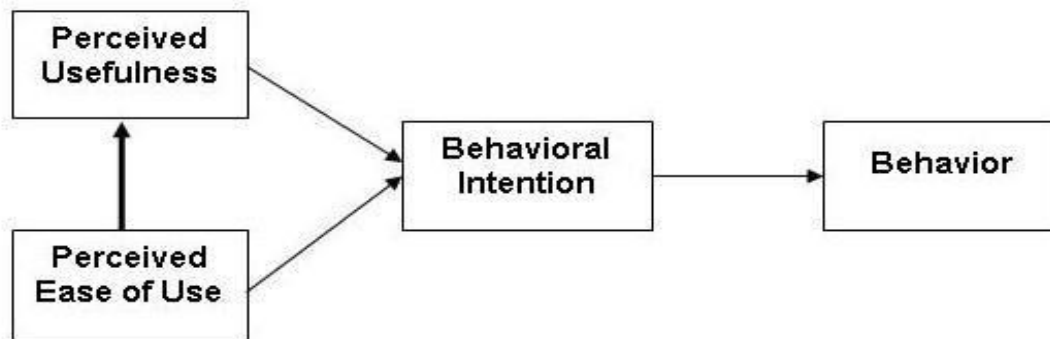


Figure 2.1: Technology Acceptance Model

Source: Davis-2020

2.2.3 Fiscal Exchange Theory

Tax compliance remains a critical challenge for many governments, especially in developing economies where revenue collection is often hindered by low compliance rates. Various theories attempt to explain taxpayer behavior, with one of the most relevant being Fiscal Exchange Theory. This theory suggests that taxpayers are more likely to comply with tax obligations when they perceive a fair exchange between the taxes they pay and the public services they receive. This essay explores the origins and meaning of Fiscal Exchange Theory, its key propositions, and its relevance to the study

on tax compliance in Kakamega County, Kenya, particularly in the context of electronic tax filing (e-filing).

Fiscal Exchange Theory is rooted in the broader field of public finance and taxation. It was initially developed by James Buchanan (1967) as part of his work on public choice theory. Buchanan argued that taxpayers assess the value they receive from government services when deciding whether to comply with tax obligations. The theory posits that when taxpayers perceive that the government efficiently uses tax revenues to provide essential public goods such as healthcare, education, and infrastructure, they are more likely to exhibit voluntary tax compliance (Buchanan, 1967).

At its core, the theory emphasizes the reciprocal relationship between taxpayers and the government. It challenges the traditional view that compliance is solely a function of enforcement and penalties. Instead, it suggests that compliance can be enhanced through positive incentives, such as improved public service delivery, transparency in tax administration, and fair tax policies (Torgler, 2003).

One of the key variables in the study is perceived usefulness, which refers to how taxpayers view the benefits of the e-filing system in simplifying tax compliance. Fiscal Exchange Theory suggests that if taxpayers perceive e-filing as an efficient, transparent, and convenient platform that reduces the burden of tax filing, they are more likely to comply voluntarily (Alm & Torgler, 2011). The study investigates whether SMEs in Kakamega County see e-filing as a tool that enhances efficiency and fairness in tax administration.

Trust in government institutions plays a crucial role in tax compliance. According to Fiscal Exchange Theory, when taxpayers trust that their taxes are being used responsibly,

they are more likely to comply without coercion (Fjeldstad & Heggstad, 2012). The study examines whether taxpayers in Kakamega County believe that KRA uses tax revenues effectively. If taxpayers feel that their contributions are mismanaged or do not translate into visible development projects, they may be less willing to use the e-filing system or comply with tax obligations.

Another critical aspect of the study is the perceived risks of e-filing, including concerns about data security, technical failures, and errors in tax reporting. Fiscal Exchange Theory implies that if the government fails to provide a secure and user-friendly tax filing system, taxpayers may perceive it as a one-sided exchange, where they bear the costs and risks of compliance while receiving minimal benefits (Ali, Fjeldstad, & Sjursen, 2014). The study assesses whether perceived risks discourage SMEs from embracing e-filing, thereby affecting compliance levels.

Fiscal Exchange Theory highlights the importance of communication between tax authorities and taxpayers in fostering compliance. If the government invests in training programs to educate taxpayers on the benefits of e-filing and how to use the system effectively, it can strengthen the perceived fiscal exchange relationship (Torgler & Schneider, 2009). The study explores whether training initiatives influence taxpayers' willingness to adopt e-filing and meet their tax obligations.

Fiscal Exchange Theory provides a strong theoretical foundation for understanding tax compliance behavior among SMEs in Kakamega County. By emphasizing the reciprocal relationship between taxpayers and the government, the theory helps explain why perceptions of e-filing efficiency, government accountability, and service delivery influence tax compliance. If taxpayers perceive that their taxes are used transparently and

that e-filing enhances convenience, they are more likely to comply voluntarily. Conversely, if they perceive risks, inefficiencies, or a lack of benefits, non-compliance may increase. Therefore, the findings of this study can offer valuable policy recommendations for improving e-filing adoption and overall tax compliance. The emphasis is on the trust by the citizens on the platform of tax filling, thus consistent training and education will demystify or overcome the mistrust that maybe there between the taxpayers and the tax Agency. It also strengthen perceived usefulness of e-filling system by enhancing accuracy believe, real time access as well as convenience perception by the tax payer who interact with the system. It's also important to note that frequency of use, friendliness of the system, reliability of the system which the e-filling system strives to meet helps in overcoming the mistrust between the taxpayers and text Agency.

2.2.4. The social learning theory

The Social Learning Theory (SLT) is important in the study of tax compliance among SMEs in Kakamega County, Kenya, for several reasons. Firstly, SLT emphasizes the role of observational learning, where individuals learn by observing others' behaviors and the outcomes of those behaviors (Bandura, 1977; Vygotsky, 1978). In the context of tax compliance, SMEs can observe and learn from other businesses that have successfully implemented E-filing systems and experienced positive outcomes such as improved accuracy in tax reporting or reduced administrative burden (Bandura, 1977; Vygotsky, 1978). This observational learning process can influence SMEs' perceptions and attitudes towards E-filing, potentially increasing their likelihood of adopting and effectively using the system for tax compliance purposes.

Secondly, SLT highlights the importance of modeling, which refers to individuals being more likely to adopt behaviors if they see others being rewarded for those behaviors (Bandura, 1977; Skinner, 1953). In the context of the study, training and education programs can showcase successful cases of SMEs that have embraced E-filing systems and received incentives or recognition for their compliance efforts (Bandura, 1977; Skinner, 1953). These positive models can serve as motivators for other SMEs to follow suit, enhancing the overall acceptance and usage of E-filing for tax compliance in Kakamega County.

Furthermore, SLT emphasizes the role of reinforcement in shaping behavior, where positive reinforcement increases the likelihood of a behavior being repeated (Bandura, 1977; Thorndike, 1911). Training and education programs can incorporate elements of positive reinforcement by highlighting the benefits and rewards associated with using E-filing systems effectively, such as streamlined tax processes, reduced penalties, or access to government incentives for compliant businesses (Bandura, 1977; Thorndike, 1911). This reinforcement of positive outcomes can incentivize SMEs to engage more actively in tax compliance activities using E-filing methods.

SLT is applied through peer modeling and collaborative learning. For instance, in a classroom, students observe their peers' behaviors and learning strategies, which can influence their own learning approaches (Bandura, 1977). However, critics argue that SLT may oversimplify the learning process by focusing too much on external stimuli and not enough on internal cognitive processes (Gergen, 1985).

SLT is used in patient education and behavior change interventions. For example, health educators use modeling techniques to demonstrate healthy behaviors like proper hand washing or medication adherence to patients (Bandura, 1986). Critics point out that SLT may not adequately address individual differences in learning and behavior change, leading to ineffective interventions for some individuals (Bandura, 1986).

In organizational settings, SLT is applied in training programs and leadership development. Employees learn from observing successful behaviors of leaders and colleagues, which can shape their own work attitudes and performance (Bandura, 1977). However, critics argue that SLT may not account for complex organizational dynamics and cultural factors that influence behavior in the workplace (Argyris, 1976).

SLT is used to understand criminal behavior and rehabilitation strategies. For example, rehabilitation programs for offenders often incorporate modeling techniques to teach pro-social behaviors and reduce recidivism rates (Bandura, 1973). Critics raise concerns about the deterministic nature of SLT, suggesting that it may overlook individual agency and personal responsibility in behavior change (Bandura, 1973).

In summary, the Social Learning Theory (SLT) is crucial in the study of tax compliance among SMEs in Kakamega County because it provides a theoretical framework for understanding how observational learning, modeling, and reinforcement mechanisms can influence SMEs' perceptions, attitudes, and behaviors towards adopting and utilizing E-filing systems for tax compliance purposes (Bandura, 1977; Vygotsky, 1978; Skinner, 1953; Thorndike, 1911). Incorporating SLT concepts into training and education programs can contribute to the successful implementation and acceptance of E-filing

initiatives, ultimately improving tax compliance rates among SMEs in the county. Human beings learn through socialization amongst themselves by the system they are using on the society in general. When the taxpayer interacts with e-filing through programmes such as formalized training and education with clarity of instructions.

The e-filing systems is a platform that the taxpayers may interact with after training and education by the tax agent hence the basis of use of social learning theory in the study.

2.3. Conceptual Review

Conceptual review of literature involved presenting conceptual view of other findings in the specific variables and constructs the study covers.

2.3.1 Perceived Usefulness and Tax Compliance

According to Davis (2020), perceived usefulness is the belief held by an individual that using information technology will enhance their performance. This kind of impression is predicated on the arbitrary likelihood that an individual utilizing information technology will find things easier and have an edge in an organizational setting.

Perceived usefulness (PU) is the subjective likelihood that a potential user will apply a particular invention to improve its processes. Jiang, Hsu, Klein, and Lin (2021) extended the concept of perceived usefulness (PU) to include the creation and application of the internet technology model and investigate its many implementations. According to Davis et al. (2020) and Gefen et al. (2020), PU can also be described as an individual's conviction to use a specific new technology or information system to increase their level of job performance. According to Davis (2020), "the degree to which the user believes that the use of a particular system will support his work" is known as perceived usefulness. In this study, PU stands for taxpayer perceptions of the utility of using an

electronic tax payment system (e-filing). Researchers studying the uptake of new technologies have provided empirical support for perceived utility. Mustapha (2017), Mamta (2023), Othman (2019), Ozgen & Turan (2018), and others conducted these empirical studies. The relationship between perceived usefulness and the system's capacity to boost efficiency, productivity, and effectiveness has also been looked at. According to the studies, intention to adopt a specific system is significantly influenced by perceived utility. Numerous fields have had extensive discussions about the importance of PU. It has also been gathered in the previous studies that perceived usefulness has a direct effect on behavioral intention to utilize internet shopping, real-time training on the web, internet banking, e-commerce, and electronic government services like e-filing (Ashoori, Noorhosseini, & Alishiri, 2015; Ibrahim, 2023; Mustapha, 2017). E-filing system has been introduced by FIRS in Nigeria to reduce the taxpayers' effort that is needed for the manual process of tax filing.

2.3.2 Perceived Ease of Use and Tax Compliance

Perceived ease of use is the belief that a person using information technology is free from efforts or effortless (Davis, 2020). Meanwhile, according to Tsung Lu et al. (2019), perceived ease of use affects the attitude of a person. Another definition according to Chau et al. (2001) states that perceived ease of use is the extent to which an individual think that using an information system will be free of effort. That is, if someone believes that technology is easy to use, he will use it. Several previous studies, including Azmi and Bee (2019) and Jankeespasrad et al. (2016), have shown that perceived ease of use has a positive and significant effect on attitudes towards the use of technology.

According to Azmi and Bee (2019), the perceived ease of use factor has a positive and significant effect on behavioral interest in using e-Filing system in Malaysia. This is in line with the study conducted by Jankeespasrad et al. (2016) finding that perceived ease of use is a factor determining significantly behavioral interest in using e-Filing system in South Africa. Perceived ease of use is defined as a degree to which a potential adopter view the usage of target technology to be relatively free of effort (Davis, 2020).

PEOU also indicates how ease individual learn how to operate or use new technology or information system (Davis et al., 2020; Gefen et al., 2020). If taxpayers perceived online tax structure to be easy to use and is less complicated, there is a high possibility of it being adopted and used by prospective users (Agarwal& Prasad, 2021). Hence, this will lead to increase in tax compliance and increase in revenue generation because the self-employed taxpayers feel the ease of using the online tax system in filling in their tax return.

Davis, (2020) identified PEOU as a primary determinant of information system adoption at the pre-implementation stage. Several surveys have established the direct impact of PEOU on BI (Dwivedi& Butcher, 2021; Ojha, Sahu & Gupta, 2019; Zakaria et al., 2019).

However, few studies establish no direct effect of PEOU and technology acceptance or online tax system (Hernandez, Jimenez, & Jose Martin, 2019; Wu & Pang, 2022). Studies on adoption of an online tax system have found PEOU to have significant influence on the use of technology (Carter & Belanger, 2021). A survey of the perceptions of 97 respondents in Sungai Petani, Kedah towards e-filing Zakaria & Hussin (2019), PEOU was discovered to be significant in a single stage model. Ojha et al. (2019) found that

young Indian professionals' effort in using e-tax filing was determined by the PEOU, compatibility, and relative advantage, perceived innovativeness of information technology and performance of the e-filing system.

2.3.3 Perceived Risk of Use and Tax Compliance

Perceived risk can be defined as the perception of uncertainties and consequences that will be faced after having a certain activity (Hsu and Chiu, 2021). Saraswati and Baridwan (2017) used perceived risk as a substitute for risk because a risk is difficult to catch as a definite target (Hsu and Chiu, 2021). This generates an assumption that a person's perceived risk is what causes the person to be reluctant or unwilling to use an e-Filing system. Several previous studies, such as Azmi and Bee (2019), Lee (2019) and Gefen et al. (2020) have shown that perceived risks have a negative and significant effect on behavioral interest in using technology-based information system. However, Belanger and Carter's (2021) study has different results. Based on Azmi and Bee's (2019) study, the perceived risk factor drives a positive and significant effect on behavioral interest in using e-Filing system in Malaysia. Similarly, the study conducted by Geefen et al. (2020) also suggest that perceived risks affect behavioral interest in using e-mail.

Azmi and Bee (2019) defined perceived risk as taxpayers' perception on the reliability of the systems usefulness/functionality and control of their personal data information in online environment. They further defined privacy risk as the concerns over the safeguard of various types of data that are collected during taxpayers' interaction with the e-filing system due to concerns on third parties accessing their personal information. The performance risk refers to the possibility of the system failing to deliver on its promises. In the study on the interaction between the perceived risk and the traditional perceived

usefulness and the perceived ease of use, Azmi & Bee (2019) argue that complex systems that take time to learn are considered risk to adopt and use.

The dependence on the third parties to assist a tax payer undertakes online tax returns have the effect of the tax payer losing data privacy (Lai & Choong, 2019). The taxpayer needs to reveal personal financial details about his business such as the income derived from the business (Lukwata, 2019). A majority of the taxpayers may not be comfortable divulging such information to third parties who are not connected to their business (Ramoo, 2023). This is because it exposes them to security risk of being robbed. In this context, the taxpayer may opt to fill the manual tax returns in a bid to protect the privacy of his data (Ssetuba, 2023). The lack of the computer literacy in general and the lack of confidence around the online filing system may lead to psychological predispositions that may influence the adoption of electronic filing (Muhangi, 2023).

For example, Mandola (2017) argues that a feeling of increased anxiety and stress due to lack of experience or comfort with using technology or feeling threatened by technology could prevent a customer being inclined to adopt the e filing system. Concerns over security issues or perceived risks on the usage of the online filing services inhibit its adoption. Ramoo (2023) argues that perceived risk influences the adoption and usage of the online filing. The perceived risk is defined as the taxpayers' perception on the reliability of the system's usefulness/functionality and the control of their personal data information in an online environment (Ramoo, 2023). In this context, taxpayers using the online system could be concerned on whether third parties can access their personal tax information without their knowledge or permission (Geetha & Sekar, 2023). The failure of the system to deliver on its objectives due to either technical issues or other reasons

affects the potential users' adoption of the system. In this context, Kamarulzaman & Azmi (2019) argues that the risk factor that taxpayers perceived to have towards the system, which promise to complete their transaction securely and to maintain the privacy of their personal information, will affect their voluntary adoption of the e-filing system.

2.3.4 Training Programs and Tax Compliance

One of the primary tactics allegedly used to improve voluntary tax compliance and the services provided to taxpayers is taxpayer education. Based on the importance of tax education in compliance in the United Kingdom, taxpayer education comprises training, offering tax support services to taxpayers, advising taxpayers, and influencing the appropriate taxpayers with the appropriate information (Mascagni & Santoro, 2018).

Maseko (2013) claims that most SMEs refuse to pay their taxes. One important aspect influencing taxpayers' awareness of tax regulations, particularly those related to registration and filing, is their educational background. According to a 2010 study by Palil, tax literacy and taxpayers' willingness to comprehend and abide by tax rules and regulations are closely related. Due to their lack of tax understanding, SMEs were not considered immune from government taxation by local authority charges in our analysis. This misconception has an impact on their legal actions since they believe they have paid taxes and have consented to pay municipal charges as they are incurred. The majority of SMEs in Uganda are characterized primarily by poor tax knowledge and skill, as most entrepreneurs appoint incompetent family members to maintain accurate financial records (Kiwanuka, 2004).

2.3.5 Tax Compliance

Tax compliance means abiding by taxpaying expectations and tax law (Mike and Alley, 2021). Noncompliance is the payment of less tax than due or outright failure to pay (Muturi and Kiarie, 2015). The major causes of this difference are contributed hugely by overstating of expenses and deductions, and understating income. Robben et al. (1990) and Webley (2021) argue that non-tax compliance encompasses premeditated tax evasion and unintentional noncompliance, these resulting from calculation errors and poor appreciation of tax laws. On the other hand, OECD (2021) divides compliance into administrative and technical categories. Administrative compliance refers to following tax reporting procedures and regulatory frameworks while technical compliance refers to following the technical dictates on payment of taxes. However, Dome (2017) identifies four key tax compliance dimensions which are: a) Registering a taxpayer when criteria are met, b) Submission of tax returns on or before due date, c) Payment of tax due on or before due date and d) Reporting tax liability accurately e.g. declaring correct income, expenditure and tax relief.

Dome (2017) further adds the dimension of a taxpayer having to register with the tax authorities when required to do so. He also highlights that one pillar of tax compliance is registration as a taxpayer when one meets criteria set by the Revenue Authority. He also states the major areas of non-compliance being the avoidance of registration and filing taxes wrongly. We therefore note that the dream of all governments is getting all its citizens to pay their taxes painlessly without complaints. The task has however, never been simple, until the introduction of the modern information technology which has simplified this task. The advancement of tax compliance has pointed at improvements in

administration fiscal of systems (Teltscher, 2020). Tax compliance is mainly achieved when majority of taxpayers voluntarily file their tax returns and pay resultant tax liabilities as stipulated in the tax laws, without the intervention of the tax authorities through enforcement. However, if the voluntary compliance is low, then enforcement measures like audit and collection are resorted to. In a bid to embrace the developments in the ICT world, tax authorities have introduced various online systems that have led to the introduction of online electronic submission of returns, online payments and online viewing of returns. Paper returns are tedious to file on the part of the taxpayer and in the same magnitude to reconcile on the part of revenue authorities (Muita, 2019), hence the use of electronic filing, which is intended at safeguarding accuracy and well-timed reconciliation of the data enclosed, since ZIMRA's SAP systems does automatic reconciliation and validation of the returns.

According to Marti (2019) that regulatory burdens fall disproportionately on small and medium enterprises internationally. Their size and nature makes the issue of tax compliance one of particular importance especially since most SMEs have access to limited resources and inadequate expertise to comply with diverse and complicated regulation. High compliance costs can result in tax avoidance, tax fraud, and inhibit investment by way of diminishing competitiveness of the country in terms of taxation attractiveness (Pope & Jabbar, 2021). Tax non-compliance may be in one of many forms; it could either be failure to submit a tax return within the stipulated period or non-submission, understatement of income, overstatement of deductions, failure to pay assessed taxes by due date and in some cases non-compliance may mean an outright failure to pay levied taxes (Kasipillai & Jabbar, 2023).

Studies have shown that the problem of tax evasion is a widespread one (Kasipillai& Abdul Jabbar, 2023). Furthermore, Fagbemi, Uadile& Noah (2019) found that it is prevalent in developing countries and it hinders development thereby leading to economic stagnation and other socio-economic problems. Chipeta (2020) identified tax rates as one of the causes of tax evasion.

He pointed out that a higher tax rate increases taxpayers' burden and reduces their disposable income therefore, the probability of evading tax is higher. Small taxpayers under the regular system of taxation are discriminated against, since the compliance requirements, cost of compliance and tax rate are the same for both small and large enterprises. Reducing the compliance costs and tax rate increases the small enterprises profit margin. It also increases the Government's tax revenue, since the simplified provisions for small and medium enterprises reduce the size of the informal economy and the number of non-complying registered taxpayers (Vasak, 2021).

An overly complex regulatory system and tax regime or one opaque in its administration and enforcement makes tax compliance unduly burdensome and often have a distortionary effect on the development of SMEs as they are tempted to morph into forms that offer a lower tax burden or no tax burden at all (Masato, 2019) and this results in a tax system that imposes high expenses on the society. Small taxpayers under the regular system of taxation are discriminated against, since the compliance requirements, cost of compliance and tax rate are the same for both small and large enterprises. Reducing the compliance costs and tax rate increases the small enterprises profit margin.

2.4. Empirical Review

Empirical review covered the strategies that had been done in this area of study and how my study is distinct from such studies.

2.4.1. Perceived usefulness e-filing system and Tax Compliance

Malonza (2016) also carried out research evaluating how medium company taxpayers in Kenya used iTax and how that affected their corporation tax compliance. The criteria used to gauge compliance were filing, reporting, and payment. Descriptive research methodology was used for the study, and taxpayers were issued a questionnaire to complete in order to gather data. Out of the 1,500 participants in the study, 75 taxpayers were chosen to provide data. The results of the study showed that Kenyan medium taxpayers' compliance increased as a result of using iTax.

Munyoro (2017) conducted research to examine how iTax affected SMEs in Wote town, Makueni county, with regard to VAT compliance. The study's particular goals were to ascertain whether Wotetown taxpayers' ICT knowledge had an impact on VAT compliance and how utilising iTax for VAT registration affected compliance. 581 SMEs from the Wote sub-county made up the study population, and 120 taxpayers were chosen at random through the use of a sample technique. After applying multiple linear regression to evaluate the data, it was discovered that most taxpayers have registered since iTax's launch. Online VAT return filing offers advantages in terms of cost, ease of use, and time required, according to registered iTax businesses. The study came to the conclusion that registering VAT taxpayers through iTax improves KRA revenue collection and closes potential channels for tax fraud.

Kiringa and Jagongo (2016) examined the effect of electronic tax filing on small and medium-sized enterprise (SME) tax compliance in the Kibwezi sub-county of Kenya in another study. The survey described how people felt about filing electronically, as well as their technical proficiency in tax return filing and compliance. The research design used for the study was a descriptive survey, and the data needed for the study was gathered from primary sources utilising an interview schedule and a self-administered questionnaire. Using a straightforward random sampling method, 316 SMEs in total were chosen as the sample size from the 1,800 SMEs that made up the target population. The data was gathered using a questionnaire that was given to 316 SMEs in the sub county of Kibwezi. Descriptive and inferential statistics were employed in the study to Apply t-test analysis to the data analysis. The results of the study showed that filing taxes online does impact SMEs' level of tax compliance in terms of their perceptions about online tax filing and Concerned were the technical aspects of submitting tax returns. The findings of the correlation test showed a negative relationship between tax compliance and the notion of online tax filing there was an increase in the technical proficiency needed to file tax returns.

Kochanova, Hasnain, and Larson (2017) provided an evaluation of the benefits of e-government for UK businesses. The inquiry was prompted by the need to examine the major obstacles that developing countries have in collecting taxes, including high compliance costs and tax official harassment that discourages investment, stifles economic growth, and encourages tax cheating. It evaluated 150 small businesses by looking at things including how much tax automation costs, how long it takes to file and pay taxes, how often tax officers visit a company, and how taxpayers perceive the cost of

tax administration. The results demonstrated that tax automation increases tax compliance while simplifying interactions between the relevant institution and the revenue body at minimal expense.

In 2016, Sawyer conducted an investigation on the intricacy of tax simplification in New Zealand, a country known for having a straightforward, transparent, and coherent tax structure. Ninety private sector companies were selected for the study and asked to provide their independent opinions on New Zealand's tax system and associated expenses. Given that the business sector has unfettered access and is allowed to share information with the government, the results showed that the procedure is less expensive and that they experience justice in tax administration. The tiny population functioning under a clear and cogent tax policy framework supports this.

Additionally, the complexity of tax simplifications in Turkey was examined by Budak and Benk (2016). This came about when taxes in the nation had increased to a point where tax rates were regarded as reasonable, cost-effective, and less complicated. A random sample of sixty respondents—business owners, legislators, and economists—was used in the study. The findings demonstrated that tax simplification's complexity had a detrimental effect and attracted criticism for being costly. The majority of economists, legislators, and business leaders agreed with this.

4.4.2 Perceived ease of use of e-filing system

Adema and Haas (2017) conducted a study on the Kampala Capital City Authority's efficient and successful municipal tax administration. The goal of the research was to implement low-cost changes to tax administration that would increase economy, flexibility, and efficiency. 75 respondents from the Kampala Capital City Authority were

included in the study. Prior to 2011, the authority collected income using a drawn-out manual approach that produced an inconsistent data base, imprecise procedures, a small tax band, and a laborious process. The implementation of new technologies in tax collecting reform resulted in prompt billing and a transparent process.

A study by Muturi and Kiarie (2015) looked at how Meru County's small-scale taxpayers' compliance with taxes was affected by the online tax system. By selecting 60 small-scale taxpayers in the area, specific goals centred on online tax registration, online tax filing, and online tax remittances. SPSS version 20 was used for the analysis of the data, which was gathered using questionnaires. The results showed a favourable correlation between tax compliance and every independent variable. It was agreed that itax has facilitated the timely processing of tax records, and it was suggested that the Kenya Revenue Authority work with telecommunications companies to improve internet connectivity in remote regions in order to encourage and promote the submission of online tax income.

Using Nairobi City County as a case study, Owino, Senaji, and Ntara (2017) examined the impact of innovation in the tax collection process on organisational performance. This was written with the goal of demonstrating how businesses are updating their systems in an attempt to improve the timeliness, efficacy, and effectiveness of their operations. Determining the degree to which online receipting time efficiency affects organisational performance was the explicit goal. 111 respondents were recruited from the top management, middle management, and lower management groups for the study using questionnaires. The results clearly showed that having a modernised system had a favourable correlation with the performance of the organisation and was associated with time efficiency in reception processing.

The factors impacting Chinese company users' intentions to embrace electronic filings were studied by Shao, Luo, and Liao (2015). This was predicated on the causal relationship between the Chinese government's significant investments in materials, labour resources, and the shift to computerised government services. The impetus stemmed from the Chinese population's poor usage of e-government services, especially for business users who could take advantage of its time-saving features. As part of the services, it made use of the organisational and environmental foundation for technology to integrate timely electronic invoicing and filing. The time-efficient nature of technology adoption had a considerable and favourable impact on business users' plans to invoice and file electronically, according to the data.

In Meru County, SMEs taxpayers' tax compliance and the impact of the online tax system were evaluated by Muturi and Kiarie (2015). The investigation had a sample of sixty respondents, and its goals were heavily weighted towards online tax filing, online tax registration, and online tax remittances. The findings showed a fitness model with an 81.6% coefficient of determination for the joint importance of all independent variables and tax compliance. This was mostly ascribed to the accompanying time efficiency.

Similarly, Wanjohi (2021) focused on the challenges of expanding Kenya's tax base and proposed mitigation strategies. The study highlighted that complex tax legislation and cumbersome procedures discourage tax compliance, making it difficult for the government to expand its tax base. The research further observed that stringent enforcement measures and the use of technology by the KRA have played a role in improving compliance, but more needs to be done to simplify tax laws and make the tax

system more user-friendly. The study recommended reforms in tax legislation, the integration of digital tax services, and awareness campaigns to increase compliance rates. Mwangi (2025) explored the relationship between tax compliance costs and compliance behavior among taxpayers in Kenya. The study found that high compliance costs, particularly those related to complex tax laws and regulatory requirements, discourage compliance. Taxpayers who perceive the cost of compliance as burdensome are more likely to evade taxes or delay filing. The study suggested that simplifying tax laws, reducing bureaucratic hurdles, and offering incentives for compliance could significantly improve tax adherence. These findings imply that reducing the financial and administrative burden associated with tax compliance is critical in fostering a culture of voluntary tax payment among businesses and individuals.

2.4.3 Ease of use of e-filing system and Tax Compliance

Allen (2017) provided a study of a new discipline for developing fields in operations management and tax information in order to assist Certified Public Accountants in providing strategic value to their businesses. The necessity of enterprise tax technology and its widespread influence on business success raised doubts about this. Of the 100 manufacturing enterprises in Uganda who participated in the research, 77% lacked a tax technology plan. Because the system was simple to use and required little technical know-how, 23% of the businesses with tax technology strategies said that their tax professionals and those with less information supported the system's ease of use.

In order to capture transactions in real time, tax automation entails establishing a timely electronic invoicing system that issues digital receipts through an integrated system with the tax records. Company owners are quite supportive of this. Nam (2016) states that

real-time electronic invoicing and tax reforms for Australian firms placed a focus on ICT proficiency and tax software when educating small business owners about taxes. He employed the snowball sampling technique on 78 businesses, selecting respondents based on their computerised invoicing history and enrolment in tax classes. The results showed that taxpayers with high compliance levels and few mistakes were those who were knowledgeable about using the online tax system and were considered adept in using electronic invoicing.

Simiyu (2024) investigated the effect of electronic taxpayer education on turnover tax compliance among small and medium enterprises (SMEs) in Eldoret Town, Uasin Gishu County. Employing an explanatory research design, the study targeted 68,712 registered SMEs and utilized systematic sampling to select a sample of 397 SMEs. The findings revealed that electronic taxpayer education had a positive and significant effect on turnover tax compliance ($\beta_1 = 0.600, p < 0.05$). Additionally, taxpayer perception was found to moderate the relationship between electronic taxpayer education and tax compliance positively and significantly ($\beta_4 = 0.422, p < 0.05$). The study concluded that electronic taxpayer education enhances tax compliance among SMEs and recommended that policymakers focus on providing tailored tax education programs to address the specific needs and challenges faced by SMEs in complying with tax regulations.

Kimani (2023) examined the factors affecting tax morale and compliance behavior among SMEs in Nairobi City County. The study focused on the impact of automation of the tax filing process, taxpayers' perceptions of tax laws, and the effect of tax penalties on tax compliance. The research utilized models of taxpayers' behavior, including economic deterrence, fiscal exchange, and comparative treatment theory, to analyze the high cases

of tax non-compliance among SMEs despite their eligibility to pay taxes. The study highlighted the importance of understanding taxpayer perceptions and the need for effective tax education and simplified tax filing processes to enhance compliance among SMEs.

Ali et al. (2023) conducted a study titled "To Pay or Not to Pay? Citizen's Attitudes Towards Taxation in Kenya, Uganda, Tanzania, and South Africa," examining factors that determine citizens' tax-compliance attitudes. Using the 2011–12 Afrobarometer survey data, the study found that tax-compliance attitude is positively correlated with the provision of public services in all four countries. However, the correlation depends on the specific service in question and differs between countries. Additionally, tax knowledge and awareness were found to be positively correlated with tax-compliance attitudes, emphasizing the role of taxpayer education in enhancing compliance.

2.4.4 Risk of use of e-filing system and Tax Compliance

In the study "Adoption of E-Filing Systems and Tax Compliance among SMEs in Nairobi County, Kenya" by Kariuki and Rotich (2018), the findings revealed that while e-filing systems significantly improved tax compliance among SMEs, several risks were noted. Key risks included data security concerns, where SMEs feared breaches of confidential financial information. Additionally, the complexity of the system and occasional technical glitches posed challenges. This descriptive survey targeted 123 SMEs in Nairobi County. A notable research gap identified was the need to explore these risks across different regions and business types to generalize the findings.

Mwangi and Wekesa (2017) conducted a study titled "Influence of E-Filing on Tax Compliance among Small and Medium Enterprises in Nakuru County, Kenya." They

discovered that despite the advantages of e-filing, SMEs faced risks such as inadequate technical skills and unreliable internet connectivity, which hindered smooth filing processes. The study, which employed a cross-sectional survey design, included 149 SMEs. The research emphasized the need for better training and infrastructure to mitigate these risks.

In "Effect of Online Tax Filing on Tax Compliance among Large Taxpayers in Kenya," Njogu (2016) highlighted that large taxpayers, similar to SMEs, experienced risks related to the reliability of the online systems and potential cyber threats. This study used a descriptive design, focusing on 101 large taxpayers. While it provided insights into the risks faced by larger entities, the findings suggested a gap in understanding the specific risks encountered by SMEs, necessitating further investigation.

Muthama and Wamitu (2019), in their study "The Impact of E-Filing on Tax Compliance: A Case Study of Nairobi County," revealed that e-filing enhanced tax compliance but also noted risks such as resistance to technological change and concerns over cyber-security. These risks were significant barriers for SMEs, who often lack robust IT support systems. The case study design targeted 81 taxpayers in Nairobi County, indicating a need for more comprehensive studies to understand these risks in varied contexts.

Omondi and Mugambi (2020) explored the "Effect of E-Filing System on Tax Compliance in Mombasa County," finding that while e-filing improved convenience and accessibility, SMEs faced risks such as technical difficulties and lack of awareness about the system. The survey included 113 taxpayers, highlighting the necessity for targeted education and technical support to mitigate these risks.

Internationally, Handayani and Irianto (2019) in their study "The Influence of E-Filing System on Tax Compliance in Indonesia" found that although the e-filing system improved compliance by simplifying the process, SMEs faced significant risks. These included data privacy concerns and the reliability of the system, which could disrupt business operations if not addressed. The study used a quantitative design with a sample size of 197 individual taxpayers, suggesting the need for further research focusing specifically on SMEs.

Aysan and Gürsoy (2018) in "E-Filing and Tax Compliance: Evidence from Turkey" indicated that e-filing led to higher compliance rates but also pointed out risks related to technical issues and the need for continuous taxpayer education. The descriptive study with 251 taxpayers emphasized the importance of robust technical support to manage these risks effectively.

Ajayi and Alaba (2020), in their study "Impact of E-Filing System on Tax Compliance in Nigeria," concluded that while e-filing improved efficiency, significant risks included poor internet connectivity and insufficient technical support, which affected SMEs more acutely. The survey targeted 179 taxpayers, highlighting the need for infrastructure improvements to mitigate these risks.

2.4.5 Training Programs and Tax Compliance

Mascagni, Santoro, and Mukama (2019) reviewed tax compliance using data from Rwanda's taxpayer education campaign. The purpose of taxpayer education is to increase tax compliance, but it has received little attention in the literature, which served as the impetus for this study. It made use of survey data from 920 Kigali respondents to provide a thorough assessment of taxpayers' perceptions of tax training and their level of

education regarding tax compliance. The results showed that tax knowledge significantly increased as a result of taxpayer education, going from a low baseline of comprehension to well-perceived compliance information. Additionally, the findings demonstrated that educating new taxpayers plays a significant role in helping them form the habit of completing tax declarations.

Kwok and Yip (2018) conducted an evaluation on the effectiveness of tax education in increasing tax compliance in Hong Kong. This was done to address opinions expressed by numerous scholars, some of whom believed that tax education encourages compliance and others who claimed that tax knowledge encourages tax evasion. The study employed 600 Hong Kong respondents to investigate the impact of tax education on tax compliance. Based on the facts and results, the research model showed that taxpayers comply if they can and will regard the tax system as fair and morally believe that compliance is required.

Kariuki (2023) explored the income tax compliance behavior of large and medium-sized business taxpayers in Kenya. The main objective was to establish the drivers explaining tax compliance behavior among these taxpayers. The study tested the validity and adequacy of the Theory of Planned Behavior (TPB) and Procedural Justice Theory (PJT) in explaining tax compliance behavior. A Structural Equation Model was built using survey data from 142 respondents covering 19 key sectors of the economy. The findings indicated that both TPB and PJT are significant in explaining tax compliance behavior, highlighting the importance of perceived behavioral control, subjective norms, and procedural justice in influencing compliance among large and medium-sized businesses.

Kangave et al. (2024) examined taxpayers' attitudes and tax compliance behavior in Kenya, focusing on how taxpayers' attitudes influence compliance behavior among SMEs. The study found that positive taxpayer attitudes towards taxation are associated with higher compliance levels. Factors such as trust in tax authorities, perceived fairness of the tax system, and the perceived benefits of public services funded by taxes were significant determinants of tax compliance behavior among SMEs. The study recommended enhancing taxpayer education and improving the relationship between tax authorities and taxpayers to foster positive attitudes and, consequently, higher compliance.

Mwesigye and Kijjambu (2024) investigated the mediating effect of taxpayer perception in the relationship between tax education and income tax filing compliance among small taxpayers in Mbarara City, Uganda. The study found that taxpayer perception had a significant partial mediating effect on the relationship between tax education and income tax filing compliance. This implies that improving taxpayer perceptions can strengthen the impact of tax education on compliance behavior. The study concluded that efforts aimed at improving taxpayer perceptions play a significant role in enhancing income tax filing compliance among small taxpayers.

Chelangat (2023) examined the factors influencing voluntary tax compliance among small and medium-sized enterprises (SMEs) in Kenya. The study identified key determinants such as the availability of tax information, compliance costs, and individual attitudes toward taxation. The findings revealed that when tax information is easily accessible and understandable, voluntary compliance improves significantly. On the other hand, high compliance costs and negative taxpayer attitudes were associated with

lower compliance levels. The study recommended that the Kenya Revenue Authority (KRA) enhance its information dissemination strategies and simplify compliance procedures to encourage greater voluntary tax compliance among SMEs.

2.5 Critique of existing literature

The critique of the existing literature highlights both its contributions and limitations in understanding tax compliance among SMEs in Kenya. Several studies have examined the impact of e-filing systems on tax compliance, with researchers such as Njogu (2016), Muthama and Wamitu (2019), and Omondi and Mugambi (2020) demonstrating that e-filing improves compliance rates but introduces risks such as cybersecurity threats and resistance to change. However, these studies are often limited in scope, either focusing on large taxpayers, specific counties, or omitting crucial variables like training programs and perceived risks. While international studies, such as those by Handayani and Irianto (2019) in Indonesia and Aysan and Gürsoy (2018) in Turkey, provide useful comparative insights, they may not fully capture the unique regulatory and infrastructural challenges faced by SMEs in Kenya. Additionally, some studies adopt a purely quantitative approach, limiting their ability to explore deeper behavioural and psychological factors affecting tax compliance. This study seeks to address these gaps by incorporating a broader regional focus, integrating qualitative insights, and examining the role of on-going taxpayer education and risk perceptions in shaping compliance behaviour.

2.6. Summary and Research Gaps

The empirical review highlighted that the perceived usefulness and ease of use of e-filing systems positively impact tax compliance among SMEs. However, various studies identified gaps such as the need for broader regional studies, exploration of specific

challenges faced by SMEs, and the impact of ongoing training and education programs. The current study on the effect of taxpayers' perception towards the e-filing system on tax compliance among SMEs in Kakamega County, Kenya, addressed these gaps by: Including a larger and more diverse sample size covering different regions within Kakamega County, Exploring specific technical challenges and risks faced by SMEs in using e-filing systems, Investigating the role of continuous training and education programs in enhancing tax compliance among SMEs and Providing comprehensive insights into the interaction between SMEs and national tax systems, offering broader applicability of the findings. This approach contributed to a more nuanced understanding of how e-filing systems influence tax compliance and provide practical recommendations for improving tax administration and compliance among SMEs in Kenya.

Table 2.1: Summary and Research Gaps

Variable	Author(s) and Year of Publication	Title of the Journal	Findings of the Study	Research Gaps Identified from the Journal	How the Current Study Filled Those Gaps
Perceived Usefulness of E-Filing System	Malonza (2016)	The Impact of iTax on Corporation Tax Compliance in Kenya	Medium taxpayers' compliance increased as a result of using iTax	Limited to corporation tax compliance; small sample size (75 out of 1,500).	The current study focused on SMEs in Kakamega County, addressed a broader scope of tax compliance and included a larger sample size.
	Munyoro (2017)	Impact of iTax on VAT Compliance Among SMEs in Wote Town	Online VAT return filing offers advantages in terms of cost, ease of use, and time required, improving KRA revenue collection	Limited to VAT compliance; focused on a specific region (Wote Town).	The current study encompassed a variety of taxes and covered a different region, providing more comprehensive insights into tax compliance.
	Kiringa and Jagongo (2016)	Effect of Electronic Tax Filing on SME Tax Compliance	Filing taxes online impacts SMEs' level of tax compliance; technical proficiency needed for online tax filing is a challenge.	Focused on a specific region (Kibwezi); limited exploration of technical challenges faced by SMEs.	The current study explored the broader context of Kakamega County and delved deeper into technical challenges faced by SMEs in using e-filing.
Perceived Ease of Use of E-Filing System	Adema and Haas (2017)	Efficient Municipal Tax Administration in Kampala	Implementation of new technologies in tax collection reform resulted in prompt billing and a transparent process.	Limited to municipal tax administration; specific to Kampala.	The current study focused on SMEs and their interaction with national tax systems, provided a wider applicability of the findings.
	Muturi and Kiarie (2015)	Online Tax System and Compliance Among Small-Scale Taxpayers	Positive correlation between online tax system and tax compliance; suggested improvements in internet connectivity in remote regions.	Focused on a small region (Meru County); did not address specific challenges SMEs face with online tax systems.	The current study included SMEs in Kakamega County and explored specific challenges related to the ease of use of e-filing systems.
	Owino, Senaji, and Ntara (2017)	Impact of Innovation in Tax Collection on Organizational Performance	Modernized tax systems positively correlate with organizational performance; online receipting improves time efficiency.	Limited to organizational performance; did not focus on SMEs' tax compliance.	The current study investigated the direct impact of the ease of use of e-filing systems on tax compliance among SMEs.

Risk of Use of Filing System	Kariuki and Rotich (2018)	Adoption of E-Filing Systems and Tax Compliance Among SMEs	E-filing systems improve tax compliance but pose risks such as data security concerns and technical glitches.	Focused on Nairobi County; limited exploration of risks across different regions and business types.	The current study examined these risks in the context of Kakamega County and included a variety of business types.
	Mwangi and Wekesa (2017)	Influence of E-Filing on Tax Compliance Among SMEs in Nakuru County	SMEs face risks such as inadequate technical skills and unreliable internet connectivity despite the advantages of e-filing.	Limited to Nakuru County; need for better training and infrastructure to mitigate these risks.	The current study addressed the need for improved training and infrastructure in Kakamega County
	Njogu (2016)	Effect of Online Tax Filing on Tax Compliance Among Large Taxpayers	Large taxpayers face risks related to the reliability of online systems and potential cyber threats.	Focused on large taxpayers; did not address risks specific to SMEs.	The current study focused on SMEs and explored specific risks they encountered with e-filing systems.
Training and Education Programs	Mascagni, Santoro, and Mukama (2019)	Tax Compliance in Rwanda: A Study on Taxpayer Education Campaign	Taxpayer education significantly increases tax compliance; educating new taxpayers helps form the habit of completing tax declarations.	Limited to Rwanda; did not address continuous education needs for existing taxpayers.	The current study investigated the impact of continuous training and education programs on tax compliance among SMEs in Kakamega County.
	Kwok and Yip (2018)	Effectiveness of Tax Education on Compliance in Hong Kong	Tax education increases tax compliance when taxpayers perceive the system as fair and believe compliance is morally required.	Focused on Hong Kong; mixed opinions on whether tax education encourages compliance or evasion.	The current study examined the role of taxpayer education in Kenya, specifically for SMEs in Kakamega County.
	Nam (2016)	Real-Time Electronic Invoicing and Tax Reforms in Australia	ICT proficiency and tax software are crucial for small business owners to comply with tax regulations through real-time electronic invoicing.	Focused on Australia; did not explore the impact of ongoing training and support for SMEs.	The current study explored the impact of ongoing training and support for SMEs in Kakamega County, focusing on e-filing systems.

Source: Researcher (2024)

2.7. The Conceptual Framework

Figure 2.2 conceptualizes the relationship between taxpayer's perception of e-filing system and tax compliance. Taxpayer's perception was the independent variable which was operationalized in terms of perceived usefulness of e-filing system, ease of use, risk of use as well as training programmes of e-filing system.

However, the depended variable was tax compliance which was measured in terms of timely registration and filling of returns as well as payment of tax and penalties.

Independent Variables

Dependent variable

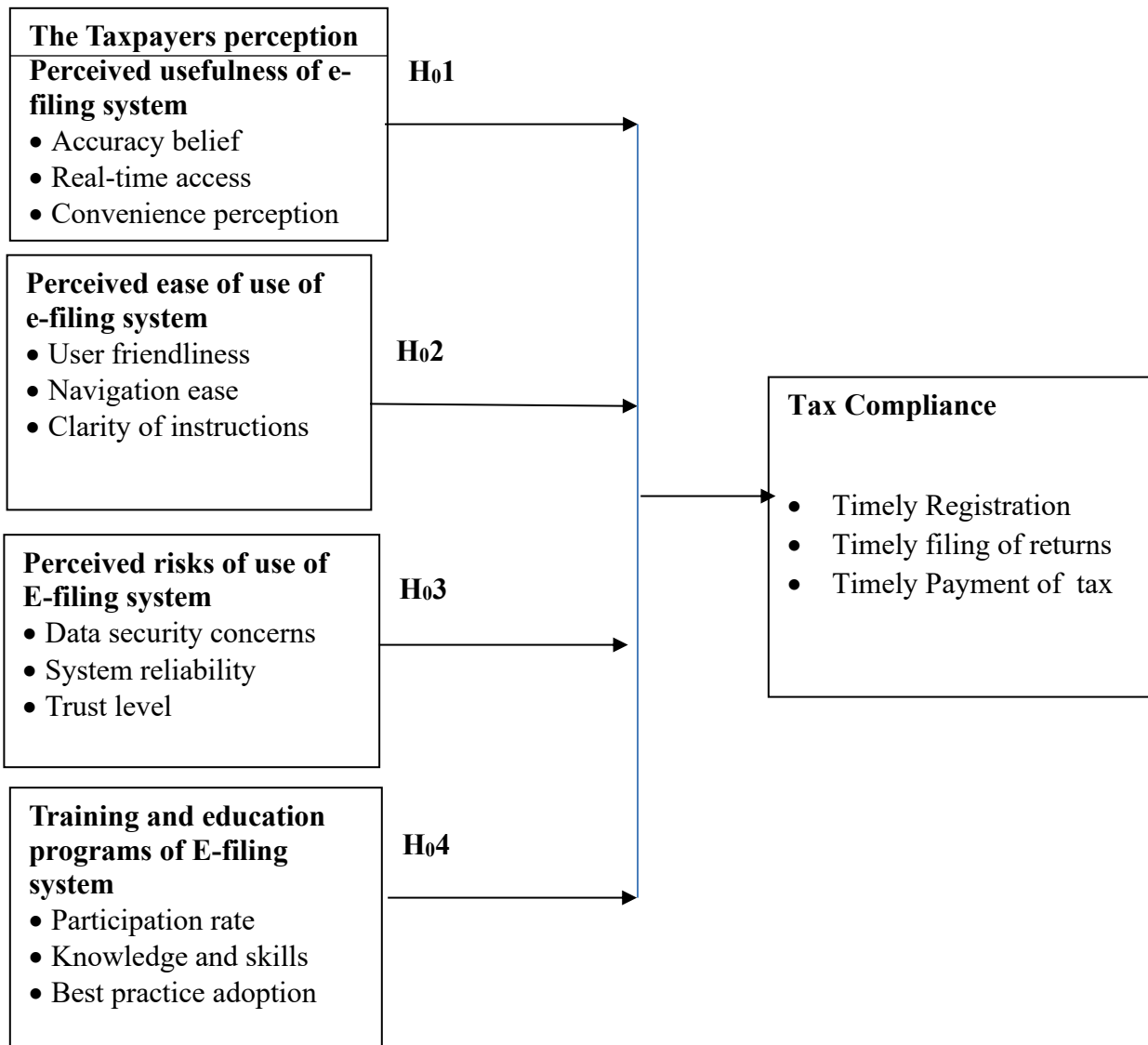


Figure 2.2: Conceptualizing the relationship between taxpayers perception on tax compliance

Source: Self conceptualization(2024)

Table 2.2: Operationalization of variables

Variable	Definition	Measurement	Scale	Sample Item/Question
Perceived Usefulness	The degree to which an SME believes that using the E-filing system will enhance their tax compliance	Survey items on usefulness aspects (e.g., time-saving, accuracy, convenience) rated on a Likert scale	Likert Scale (1-5)	"Using the E-filing system saves me time when filing taxes."
		Open-ended question analyzed for themes	Qualitative Analysis	"In what ways has the E-filing system been useful for your business?"
Perceived Ease of Use	The degree to which an SME believes that using the E-filing system will be free of effort	Survey items on ease of use aspects (e.g., user-friendliness, clarity of instructions) rated on a Likert scale	Likert Scale (1-5)	"The E-filing system is easy to navigate."
		Open-ended question analyzed for themes	Qualitative Analysis	"What challenges have you faced while using the E-filing system?"
Perceived Risk	The degree to which an SME perceives potential negative consequences from using the E-filing system	Survey items on perceived risks (e.g., security concerns, fear of errors) rated on a Likert scale	Likert Scale (1-5)	"I worry about the security of my information when using E-filing."
		Open-ended question analyzed for themes	Qualitative Analysis	"What concerns do you have regarding the use of the E-filing system?"
Training and Education Programs	The extent to which SMEs have received training or education on how to use the E-filing system	Number and frequency of training sessions attended	Frequency Count	"How many training sessions on E-filing have you attended?"
		Awareness of educational resources (yes/no)	Nominal (Yes/No)	"Are you aware of any educational resources or programs on how to use the E-filing system?"
		Open-ended question analyzed for themes	Qualitative Analysis	"Describe any training or educational programs you have participated in regarding the E-filing system."
Tax Compliance	The extent to which SMEs adhere to tax regulations by using the E-filing system	Survey items on compliance behavior rated on a Likert scale	Likert Scale (1-5)	"I always file my tax returns on time using the E-filing system."
		Open-ended question analyzed for themes	Qualitative Analysis	"How has using the E-filing system impacted your tax compliance?"

CHAPTER THREE RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the research methodology that was used in the study on effect of taxpayers' perception towards e-filing system on tax compliance among SMEs in Kakamega County, Kenya. The chapter contains the study area, research design, research philosophy, the target population, the sample size and sampling techniques, the data collection instruments, reliability and validity of research instruments and the data presentation and ethical considerations.

3.2. Study Area

Kakamega County is located in the western region of Kenya and is known for its rich cultural heritage and vibrant economy. It is the second most populous county in Kenya, with a population of approximately 1.87 million people as of the 2019 census. The county is predominantly rural, with a significant portion of its population engaged in agriculture, small-scale businesses, and informal sector activities (KNBS, 2019).

The county's economic activities are diverse, with a notable presence of small and medium enterprises (SMEs) across various sectors, including agriculture, retail, manufacturing, and services. SMEs play a crucial role in the county's economy, providing employment and contributing to economic growth. The business environment in Kakamega County is characterized by a mix of traditional practices and modern entrepreneurial activities, making it a dynamic area for studying tax compliance behaviors.

Kakamega County has a robust SME sector, which makes it an ideal location to study the effects of taxpayers' perceptions towards the e-filing system on tax compliance. The

diverse range of SMEs allows for a comprehensive analysis of how different types of businesses perceive and engage with the e-filing system. The county's demographic and economic characteristics provide a rich context for examining tax compliance. With a mix of urban and rural settings, the study can capture a wide spectrum of factors influencing tax compliance, including access to technology, literacy levels, and economic activities. The findings from Kakamega County can provide valuable insights for policymakers and tax authorities. Given the county's significant population and economic activities, understanding the compliance behavior of SMEs in this region can inform strategies to enhance tax administration and compliance at both the county and national levels. Kakamega County faces challenges related to tax compliance, such as limited awareness of tax regulations, inadequate access to technological infrastructure, and varying levels of ICT literacy among business owners. These challenges make it a pertinent study area to explore how the e-filing system can address these issues and improve compliance rates. Kakamega County serves as a representative sample of the larger Western Kenya region. The insights gained from this study can potentially be extrapolated to similar counties within the region, thus broadening the impact and applicability of the research findings.

By focusing on Kakamega County, this study aimed to provide a detailed understanding of how SMEs perceive the e-filing system and how these perceptions influence their tax compliance behavior. The findings will contribute to enhancing tax administration practices and support the development of targeted interventions to improve compliance rates among SMEs in Kenya. The study was carried out in Kakamega County, The population for this study comprised of Small and Medium Enterprise in Kakamega

County who have businesses registered with KRA and are also themselves registered as taxpayers with KRA. Kakamega County for purposes of this study comprised of 12 sub counties in which 1. Market per sub County was targeted. The preliminary data provided by KRA puts the number of SMES in Kakamega county at 7,133 (Kenya Revenue Authority Tax Base Expansion Office, 2023). The distribution of the SMEs population per sub County is as follows in table 3.1.

Table 3.1: SMEs Population

Sub county	Number of SMEs per sub county
Malava	873
Butere	227
Ikololamani	582
Khwisero	324
Lugari	840
Likuyani	936
Mumias East	324
Mumias West	582
Shinyalu	194
Navakholo	453
Matungu	700
Lurambi	1,098
Total	7,133

Source: Kenya Revenue Authority Tax Base Expansion Office, 2023

3.3. Research Philosophy

According to Saunders, Lewis, and Thornhill (2015), research philosophy is the set of presumptions and beliefs that guide our worldview. It may also be defined as an ideology on the methods for collecting, evaluating, and using evidence related to a phenomenon (Wang, 2012). It is the basis of knowledge, and knowledge by its very nature is predicated on significant worldviews. Regarding reality and knowledge, there are two extreme philosophical perspectives (schools of thought). These are pragmatism,

positivism, and interpretivism. Positivism is associated with the philosophical perspective of quantitative research, which involves utilising an observable social reality to generate generalisations that resemble laws. It promises precise and clear information (Elkjaer & Simpson 2011).

Similar to critical realism, interpretivism originated as a subjectivist critique of positivism. Interpretivism highlights how the ability to interpret things makes people distinct from physical events. Conversely, pragmatic research designs integrate operational choices that are determined by "what will work best" in order to obtain answers to the study questions (Halfpenny, 2015). According to pragmatism, the research topic is the primary factor that determines the research philosophy chosen; depending on the question, one strategy may be more appropriate than another (Saunders, Lewis & Thornhill, 2012). A pragmatic approach to the development of concepts, theories, and their rationale is philosophical (Collis & Hussey, 2014).

The research question is the primary factor that determines the research philosophy, according to pragmatist research philosophy. Depending on the nature of the research question, pragmatics can incorporate both positivist and interpretivism viewpoints within the parameters of a single study (Matta, 2015). This research is guided by the concept of pragmatism. The pragmatism paradigm offers a philosophical viewpoint that is consistent with the methodological features of both qualitative and quantitative research, which is why it is chosen for this study. According to pragmatism, ideas are only important when they facilitate action (Kelemen & Rumens 2008). It makes an effort to balance subjectivism and objectivism, values and facts, precise and thorough information, and many contextualised experiences.

In order to achieve this, theories, concepts, ideas, hypotheses, and research findings are taken into account not in an abstract manner but rather in terms of the roles that they play as tools for thought and action as well as the practical implications in particular situations (Elkjaer & Simpson 2011). The current study's foundation was informed thematically by this argument. Simpson and den Hond (2020), who investigated the modern resonances of classical pragmatism for analysing organisation and organising, supported the use of pragmatist position in this study. The research upheld pragmatism as a process philosophy and its assertion that experience is both the beginning and the conclusion of inquiry, contending that the philosophy provided crucial foundational material for the study of organising and organisation.

According to Creswell (2008), pragmatism is the paradigm that balances quantitative and qualitative research, making it the most appropriate for mixed methods research approaches. All methods of problem comprehension are applied by the pragmatic paradigm in accordance with the study problem (Creswell, 2009). According to Teddlie & Tashakkori (2010), the paradigm strikes a compromise between the inductive reasoning used in qualitative research and the deductive reasoning utilised in quantitative research. As a result, pragmatism which has no philosophical allegiance to any other paradigm emerges as the best philosophical perspective most likely to shed light on the research subject at hand, with the research technique of this study being guided by it.

3.4. Research Design

According to Kothari (2021), the research design serves as the bedrock of any study, functioning as a meticulously crafted plan, roadmap, and blueprint for investigation aimed at addressing research inquiries. It is the framework that holds the research

endeavor together, providing structure and coherence. Through the research design, all essential elements of the study such as samples, variables, treatment protocols, and assignment methodologies are organized synergistically to address the fundamental research questions. In this study, a descriptive research design was employed. Descriptive research focused on exploring qualitative phenomena, and in this context, it was utilized to assess the impact of taxpayers' perception on tax compliance among SMEs in Kakamega County.

3.5. Target Population

Mugenda and Mugenda (2008) defines target population as a well-defined set of people, services, elements, and events, group of things or households that are being investigated. They argue that target population in statistics is the specific population about which information is desired. The target population in this study comprised of all the SMEs in Kakamega County. Since the population of the SMEs is large, this study only focused on those SMEs whose businesses are registered by KRA who total up to 2,272.

The study focuses on tax compliance among SMEs in Kakamega County, specifically in relation to the electronic filing (e-filing) system introduced by the Kenya Revenue Authority (KRA). The main type of tax under investigation includes Turnover Tax (TOT), which applies to small businesses, as well as other statutory taxes such as Value Added Tax (VAT) and Income Tax that SMEs are required to comply with when using the e-filing system.

3.6 Sample Design and Sampling Procedure

A sample, according to Kombo and Tromp (2006), is a limited portion of a statistical population whose characteristics are investigated in order to learn more about the entire

population or universe. According to Kothari (2012), a sample size needs to be sufficiently large to be representative of the entire population. According to Creswell (2014), the sample size that the researcher selects should be able to provide sufficient information about the population and one that is simple to evaluate. Using the Yamane Taro (1967) Formulae, the sample for this study was calculated as follows:

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

Where n = Desired sample size

N = Total Population under Study (In this case, there are 2,272 SMEs)

e = Signifies the margin of error in this case taken as 5%

$$\text{Hence, } n = \frac{2272}{1 + 2272(0.5)^2} = 340.306$$

Therefore n= 340 SMEs

Proportional stratified sampling formula was used to obtain the sample size for each sub-county. In this sampling technique, the sample size for each subgroup (in this case, each sub-county) is determined based on its proportion to the total population.

3.7 Data Collection Instruments

Mertens (2014) define research instruments as tools for collecting data. In a study, there are a number of research tools that can be used depending on the nature of the study, the kind of data to be collected and the kind of population targeted. Both open and closed ended questionnaire were used in this study. A questionnaire is an instrument that is used to gather data and allows measurement for or against a particular viewpoint.

It is meant to provide a standardized tool for data collection and attain objectivity in a survey (Gray, 2019). In this study, a 5-point Likert scale was utilized to measure

respondents' perceptions and attitudes towards various aspects of taxpayers' perception towards e-filing system and tax compliance. The Likert scale was structured to capture the degree of agreement or disagreement with specific statements related to the study variables.

The research instruments were well-aligned with the conceptual framework to assess SMEs' adoption of the E-filing system for tax compliance. Perceived usefulness and ease of use were measured through Likert-scale items on efficiency, accuracy, and user-friendliness, with open-ended questions capturing specific benefits and challenges. Perceived risk was assessed through statements on security, privacy, and system reliability, while open-ended responses provided deeper insights into SMEs' concerns. Training and education effectiveness is evaluated through accessibility, relevance, and impact on compliance behavior. Tax compliance behavior was examined via structured questions on timely filing, record-keeping, and regulatory awareness. Demographic data provided context for analysis. The mix of quantitative and qualitative responses ensured a comprehensive understanding of SMEs' experiences, challenges, and suggestions for improving the E-filing system.

3.8. Pilot Test

Before a survey is carried out all aspects of the questionnaire as a survey instrument should undergo a pilot test (Yin, 2017). Pre-testing enables the researcher to modify and remove ambiguous items on instruments. A pilot test is conducted to detect weaknesses in design, instrumentation and to provide proxy data for selection of probability sample. Pilot test enables the researcher to identify and eliminate any problems that may exist in a questionnaire and examine the reliability and validity for measures used in the

questionnaire (Yin, 2017). A pilot study is conducted with 10% of the population (Creswell & Clark, 2017). In this study, 34 respondents were sampled to take part in pilot test. This represented 10 percent of the sample size which is appropriate according to (Creswell & Clark, 2017).

The pilot study was conducted in Bungoma County instead of Kakamega County to avoid respondent bias and ensure the validity and reliability of the research instruments. Since the main study focused on SMEs in Kakamega County, conducting the pilot study in the same area could have exposed some respondents to the questionnaire before the actual data collection, potentially influencing their responses. Bungoma County was selected because it shares similar economic and business characteristics with Kakamega County, particularly in terms of SME operations and tax compliance challenges. This similarity ensured that the pilot study provided meaningful insights while minimizing the risk of data contamination. Additionally, conducting the pilot study in Bungoma allowed the researcher to refine the questionnaire, identify ambiguities, and assess the feasibility of the study without interfering with the main research population.

3.8.1 Reliability of instruments

The developed research instrument was pre-tested for reliability using an identical sample in the specified strata with the aim of aiding data collection instruments. It helped ensure that research questions were stated clearly and have the same meaning to all respondents. In order to achieve high precision pilot studies, 1% to 5% of the sample should constitute the pilot test size (Mugenda & Mugenda, 2008). The reliability coefficient of the research instruments were checked using Cronbach's alpha since which requires only one administration of the data collection tool. Cronbach's Alpha Coefficient was used

because it measures the internal consistence of the research instrument items. The alpha coefficient ranges in value from zero to one and the closer Cronbach's alpha coefficient is to 1 the greater the internal consistency of the items in the scale. A threshold of 0.70 was used (Creswell & Clark, 2017). To test the reliability, the researcher used conformability which is the degree to which the findings of the research study could be confirmed by other researchers. Internal consistency was tested using Cronbach's alpha statistic. Pallant (2013) advises that where Cronbach's alpha coefficient is used for the reliability test, the value should be above 0.7.

3.8.2 Validity of Instruments

Validity is concerned with whether the findings are really about what they appear to be (Mugenda & Mugenda, 2008), and were ascertained by more than three experts consulted during the study (Alson & Bowles, 2019) the pilot study response guided on content and criterion validity checks as the respondents were asked on the tool. This ensured the content validity. They also commented on relevance and any bias that can be on the tool to increase the criterion validity (Creswell & Creswell, 2017). The tool was then adjusted accordingly.

3.9 Data Analysis

Data analysis and presentation was through descriptive statistics describe patterns and general trends in a data set. Descriptive statistics was used to examine or explore one variable at a time. The open-ended questions were analyzed using qualitative content analysis, where responses were categorized into key themes, such as efficiency, technical challenges, security concerns, and training gaps. A thematic coding process identified recurring patterns, and frequency analysis determined the most common issues and

suggestions. Illustrative quotes were used to support findings, and the results were compared with quantitative Likert-scale data to identify consistencies or discrepancies. This approach provided deep insights into SMEs' experiences with the E-filing system, helping to highlight practical challenges and areas for improvement. Descriptive statistics included frequencies, percentages, mean and standard deviation (Mugenda & Mugenda, 2008). Mean is a measure of central tendency used to describe the most typical value in a set of values. Descriptive and inferential statistics was used to analyse quantitative data after appropriate data coding using Statistical Package for Social Science (SPSS) version 28. Standard deviation shows how far the distribution is from the mean. Inferential statistics was used to test the research hypotheses as they are trying to establish the associations and relationships between the independent variable) and the dependent variable. The relationship between level of the independent and dependent variables was measured using Pearson Correlation and regression analysis (Creswell & Clark, 2017). The researcher conducted a linear regression analysis in order to establish the relationship between the taxpayers perception of e-filing system and Tax compliance. The following regression model was used for quantitative procedures examining the relationship between independent and dependent variables. The multiple regression model formula that was used is as shown below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad \text{Where;}$$

Y = Tax compliance (Dependent variable);

β_0 = Constant

$\beta_1 - \beta_4$ = Coefficient of all the Independent Variables;

X_1 = Perceived Usefulness of E-filing system;

X_2 = Perceived Ease of Use of E-filing system

X_3 = Perceived Risk of Use of E-filing system

X_4 = Training programs towards E-filing system

ε = Error term.

The assumption of this model is that there must be a linear relationship between the outcome variable and the independent variable.

3.10. Ethical Considerations

Ethics refers to norms and procedures that guide conduct. In this study, a number of principles (Carrol & Buchholtz, 2000) guided the researcher. The researcher first received a letter of approval from Masinde Muliro University of Science and Technology to comply with ethical standards. Secondly, the National Commission for Science, Technology and Innovation (NACOSTI) issued a research license to the researcher. In order for the respondents to provide their consent, the researcher clearly informed them of the study's purpose prior to distributing the questionnaires. The researcher safeguarded the anonymity of the respondents and the data they were asked to provide in order to ensure that the respondents were safe. Additionally, the researcher did not participate in any activity throughout the research procedure that could endanger the respondents' physical or psychological well-being. Interpretation throughout the analysis was restricted to the impartially acquired data and information. The results were applied to the intended use only.

CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSIONS

4.0. Introduction

This chapter presents the findings of the study on effect of taxpayers' perception towards e-filing system on tax compliance in Kakamega County, Kenya. The chapter contains the response rate, demographic data, descriptive statistics and inferential results.

4.1. Response Rate

The study distributed a total of 340 questionnaires to SMEs in Kakamega County. Out of these, 247 were satisfactorily filled and returned, resulting in a response rate of approximately 72.6%. The remaining 93 questionnaires (27.4%) were either unsatisfactorily filled (53) or not returned (40). The high response rate enhances the reliability and validity of the findings (Mugenda & Mugenda, 2003).

Table 4.1: Response Rate

Category	Frequency	Percentage
Satisfactorily filled	247	72.6%
Unsatisfactorily filled	53	15.6%
Unreturned	40	11.8%
Total	340	100%

4.2. Reliability and Validity of research instruments

To ensure the reliability and validity of the research instrument, a pilot study was conducted in Bungoma County, involving 34 respondents, representing 10% of the sample size. This pilot study aimed to pre-test the questionnaire and refine it based on the feedback received.

4.2.1. Validity

To ensure the validity of the constructs measured in the study on the effect of taxpayers' perceptions towards the E-filing system on tax compliance amongst SMEs in Kakamega County, Kenya, a pilot study was conducted in Bungoma County involving 34 respondents. The validity of the measurement instruments was tested using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. The KMO measure assesses the suitability of data for factor analysis. It evaluates the proportion of variance among variables that might be common variance. A higher KMO value indicates that a factor analysis is likely appropriate. KMO values range from 0 to 1, where values closer to 1 indicate greater adequacy for factor analysis. According to Hutcheson and Sofroniou (1999), the KMO values can be interpreted as follows: 0.90 to 1.00: Marvelous, 0.80 to 0.89: Meritorious, 0.70 to 0.79: Middling, 0.60 to 0.69: Mediocre, 0.50 to 0.59: Miserable, and Below 0.50: Unacceptable. The results from the KMO Measure of Sampling Adequacy was 0.82. The KMO value of 0.82 indicates a meritorious level of sampling adequacy, suggesting that the data is suitable for factor analysis.

Bartlett's test on the other hand evaluates whether the correlation matrix is an identity matrix, which would indicate that the variables are unrelated and unsuitable for structure detection. A significant Bartlett's test ($p < 0.05$) suggests that there are significant correlations among variables, making them suitable for factor analysis (Bartlett, 1950).

The Bartlett's Test of Sphericity results was Chi-Square Value = 320.5, $p < 0.001$. The significant result of Bartlett's test ($p < 0.001$) indicates that the correlation matrix is not an identity matrix, confirming that there are significant correlations among the variables.

The results of the KMO and Bartlett's tests confirm the validity of the measurement instruments used in the pilot study. The data collected is appropriate for factor analysis, indicating that the variables (perceived usefulness, perceived ease of use, perceived risk, and training and educational programs) are adequately correlated. This supports the suitability of these constructs for assessing tax compliance among SMEs in Kakamega County

4.2.2. Reliability

The reliability of the questionnaire was assessed using Cronbach's alpha coefficient, which measures internal consistency. The pilot study's reliability analysis yielded the following results:

Table 4.2: Results of Reliability Test

Variable	Number of Items	Cronbach's Alpha
Perceived Usefulness	5	0.85
Perceived Ease of Use	5	0.83
Perceived Risk	5	0.79
Training and Educational Programmes	5	0.81
Tax compliance	5	0.79

According to Nunnally (1978), a Cronbach's alpha value above 0.70 is considered acceptable for social science research. All the variables in this study achieved Cronbach's alpha values above this threshold, indicating good internal consistency and reliability of the measurement instrument. These findings confirmed that the questionnaire was both valid and reliable for measuring the perceptions of taxpayers towards the E-filing system and its impact on tax compliance among SMEs in Kakamega County.

4.2.3. Diagnostic Tests Results

To ensure the robustness of the regression analysis in the study on the effect of taxpayers' perceptions towards the E-filing system on tax compliance amongst SMEs in Kakamega County, Kenya, several diagnostic tests were performed. These tests included checking for linearity, multicollinearity, autocorrelation, heteroscedasticity, and outliers. A total of 340 questionnaires were distributed, with 247 satisfactorily filled and returned for analysis, representing a 72.6% response rate.

4.2.4. Linearity

Linearity refers to the relationship between the independent variables and the dependent variable being linear. This assumption can be checked using scatter plots or partial regression plots. If the points in the scatter plot form a linear pattern, the linearity assumption is satisfied.

Scatter plots of each independent variable (perceived usefulness, perceived ease of use, perceived risk, and training and educational programs) against the dependent variable (tax compliance) indicated a linear relationship. This confirms that the assumption of linearity is met.

4.2.5 Multicollinearity

Multicollinearity refers to a scenario in which the correlations or links between various independent variables are particularly strong (Gujarati & Porter, 2009).

Table 4.3: Collinearity Diagnostic Test results

Variable	Tolerance	VIF
Perceived usefulness of e-filing system	0.80	1.25
Perceived ease of use of e-filing system	0.87	1.18
Perceived risk of use of e-filing system	0.74	1.35
Training and educational programs	0.77	1.30

Source: Research Data(2024)

The collinearity diagnostics for the study on the effect of taxpayers' perceptions towards the E-filing system on tax compliance among SMEs in Kakamega County reveal the following insights: The VIF values for all predictor variables range from 1.15 to 1.35, which are well below the common threshold of 10. This indicates that there is no significant multicollinearity among the predictors. A VIF value less than 10 suggests that the predictor variables are not highly correlated with each other and that each variable provides unique information to the model. The tolerance values for all predictor variables range from 0.74 to 0.87. Tolerance is the reciprocal of VIF, and values above 0.2 suggest that multicollinearity is not a concern. In this study, all tolerance values are well above 0.2, reinforcing the conclusion that multicollinearity is minimal. Perceived Usefulness of E-filing System With a mean of 3.96 and a standard deviation of 1.28, this variable shows moderate agreement among respondents regarding the usefulness of the E-filing system. The VIF value of 1.25 and tolerance of 0.80 indicate that it does not suffer from significant collinearity issues. Perceived Ease of Use of E-filing System: This variable has the lowest mean (2.45) and standard deviation (1.18) among the predictors, suggesting that respondents have a varied but generally neutral perception of ease of use. The VIF of 1.15 and tolerance of 0.87 indicate that it is also not highly correlated with

other predictors. Perceived Risk of Use of E-filing System: With a mean of 3.06 and standard deviation of 1.43, respondents show neutral to slightly positive perceptions regarding the risk associated with using the E-filing system. The VIF value of 1.35 and tolerance of 0.74 suggest low multicollinearity.

Training and Education Programs: This variable has a mean of 3.38 and standard deviation of 1.39, indicating that respondents find the training and education programs moderately helpful. The VIF of 1.30 and tolerance of 0.77 indicate that it does not significantly overlap with other predictors in terms of information.

4.2.5. Autocorrelation

Autocorrelation refers to the correlation of a variable with itself over successive time intervals. The Durbin-Watson statistic is commonly used to detect autocorrelation in the residuals from a regression analysis. Values close to 2 indicate no autocorrelation, while values less than 1 or greater than 3 are problematic (Durbin & Watson, 1950).

The Durbin-Watson statistic was found to be 1.89, indicating no significant autocorrelation in the residuals.

4.2.6. Heteroscedasticity

Heteroscedasticity occurs when the variance of the errors is not constant across all levels of the independent variables. This can be tested using the Breusch-Pagan test or visually inspecting a plot of residuals versus predicted values. A significant test ($p < 0.05$) indicates the presence of heteroscedasticity.

The Breusch-Pagan test yielded a p-value greater than 0.05, and the plot of residuals versus predicted values showed no clear pattern, indicating homoscedasticity (constant variance) and satisfying the assumption of homoscedasticity.

4.2.7. Outliers

Outliers are extreme values that can disproportionately affect the results of the regression analysis. They can be detected using standardized residuals, Cook's distance, or leverage values. Standardized residuals greater than ± 3 are considered outliers (Stevens, 2002). Examination of the standardized residuals revealed that no values exceeded ± 3 . Additionally, Cook's distance and leverage values were within acceptable limits, indicating no influential outliers.

4.3. Demographic characteristics of the respondents

4.3.1. Market Centers of Respondents

The study examined the distribution of respondents across various market centers in Kakamega County. The representation from different market centers is summarized below:

Table 4.4: Market Centers of Respondents

Market Centre	Frequency	Percentage
Malava	28	11.3%
Butere	17	6.9%
Ikolomani	29	11.7%
Khwisero	20	8.1%
Lugari	16	6.5%
Likuyani	18	7.3%
Mumias East	27	10.9%
Mumias West	10	4.0%
Shinyalu	21	8.5%
Navakholo	16	6.5%
Matungu	29	11.7%
Lurambi	16	6.5%
Total	247	100%

The study examined the distribution of respondents across various market centers in Kakamega County. The representation from different market centers is as follows: Malava had 28 respondents, Butere 1, Ikolomani 29, Khwisero 20, Lugari 16, Likuyani 18, Mumias East 27, Mumias West 10, Shinyalu 21, Navakholo 16, Matungu 29, and Lurambi 16. This diverse geographical representation ensures that the findings are not skewed by the characteristics of any single area, thereby providing a comprehensive view of the perceptions of SMEs across the county (Kothari, 2004).

4.3.2. Level of Education of Respondents

The educational background of the respondents is distributed is presented below:

Table 4.5: Level of Education of Respondents

Educational level	Frequency	Percentage
PhD	0	0%
Masters	7	3%
Bachelor's degrees	67	27%
Diploma	77	31%
Certificate	96	39%
Total	247	100%

The educational background of the respondents varied significantly. None of the respondents had a PhD, 3% had a master's degree, 27% had bachelor's degrees, 31% had diplomas, and 39% had certificates. This distribution indicates that the majority of the respondents have post-secondary education, which could influence their understanding and perception of the E-filing system. Higher educational attainment is often associated with better comprehension of technological systems, which could affect the adoption and effective use of E-filing (Schneider, 2015).

4.3.3. Duration of SME Operation

The duration for which the respondents' SMEs had been in operation was another key focus of the study. The findings showed that 146 respondents (59.1%) indicated their SMEs had been operational for less than four years, 84 (34.0%) had been operating between 4-10 years, and 37 (6.9%) had been in business for more than 10 years. The table below summarizes this information:

Table 4.6: Duration of operation as SME

Duration of operation	Frequency	Percentage
Less than 4 years	146	59.1%
4-10 years	84	34.0%
More than 10 years	37	6.9%
Total	247	100%

4.4. Descriptive results of the study objectives

Descriptive analysis included description of the perceived usefulness of e-filing system, perceived ease of use of e-filing system, perceived risk of e-filing system, training and educational programme towards e-filing system. The descriptive results also presented the findings for the dependent variable. The responses ranged from strongly disagree (1) to strongly agree (5) on a likert scale.

4.4.1. Perceived usefulness of e-filing system and tax compliance amongst SMEs

These are condensed responses to the query of whether perceived usefulness of e-filing system has an effect on tax compliance amongst SMEs in Kakamega County. The results are displayed in table 4.7.

Table 4.7: Perceived Usefulness of E-filing system

No.	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD
		1	2	3	4	5		
1	My tax filing performance is enhanced by technology.	3 1.2%	12 4.9%	22 8.9	119 48.2%	91 36.8%	4.15	0.86
2	Using technology improves my efficiency while filing taxes	10 4.0%	40 16.2%	20 8.1%	68 27.5%	109 44.1%	3.91	1.24
3	I find that using technology to file taxes is beneficial.	30 12.1%	13 5.3%	15 6.1%	76 30.8%	113 45.7%	3.93	1.35
4	I find the information on the KRA online tax filing system to be helpful.	3 1.2%	10 4.0%	21 8.5%	56 22.7%	157 63.6%	4.43	0.90
5	Online tax filing system is functional	14 5.7%	33 13.4%	5 2.0%	51 20.6%	144 58.3%	4.13	1.28
6	Overall, I find online tax filing system useful	25 10.1%	27 10.9%	14 5.7%	46 18.6%	135 54.7%	3.97	1.40
7	The E-filing system is useful for managing my tax obligations.	12 4.9%	37 15.0%	9 3.6%	68 27.5%	121 49.0%	4.01	1.25
8	Using the E-filing system makes tax compliance easier for my business	20 8.1%	30 12.1%	6 2.4%	55 22.3%	136 55.1%	4.04	1.34
9	I am likely to continue using the E-filing system for future tax filings	56 22.7%	10 4.0%	3 1.2%	21 8.5%	157 63.6%	3.86	1.68
10	I am satisfied with the features and functionalities of the E-filing system for tax purposes.	22 8.9%	12 4.9%	119 48.2%	91 36.8%	3 1.2%	3.17	0.89
Aggregate							3.96	1.28

From Table 4.7., the aggregate mean of 3.96 suggests that respondents generally agree with the claims concerning the utility of the e-filing system. This shows that users have a positive overall perception. The statement "My tax filing performance is improved by technology" has a mean of 4.15 and a reasonably small standard deviation of 0.86. This suggests that the majority of respondents agree that technology enhances their tax filing

performance, with little difference in their answers. As a result, the mean score of 3.91 for "Using technology improves my efficiency while filing taxes" indicates that respondents consider the e-filing system to be efficient. However, the standard deviation of 1.24 reveals some variety in replies, implying that, while many people find it efficient, a sizable proportion do not.

The statement "I find that using technology to file taxes is beneficial" has a mean of 3.93 and a standard deviation of 1.35, indicating a positive perspective but also revealing a wide variety of opinions among respondents. The highest mean of 4.43 for "I find the information on the KRA online tax filing system to be helpful" indicates widespread agreement. The low standard deviation of 0.90 suggests that users consistently rate the system's information as helpful.

The statement "Online tax filing system is functional" has a mean of 4.13 and a standard deviation of 1.28, indicating that the majority of respondents agree that the system works well, however their opinions differ. With a mean of 3.97 and a standard deviation of 1.40, respondents considered the online tax filing method to be useful. The variety in responses indicates that some users have mixed feelings. The mean of 4.01 for "The E-filing system is useful for managing my tax obligations" and a standard deviation of 1.25 suggest that the majority of respondents found the system useful in handling their taxes, however there are those who disagree.

The mean score of 4.04 for "Using the E-filing system makes tax compliance easier for my business" with a standard deviation of 1.34 indicates a generally good opinion, however other businesses may not find it as advantageous. The statement "I am likely to continue using the E-filing system for future tax filings" has a mean of 3.86 and a large

standard deviation of 1.68, showing that while many users want to continue using the system, others are uncertain. Satisfaction with features and functionalities has the lowest mean (3.17), with a standard deviation of 0.89. This lower score and smaller variability indicate that, while respondents are usually neutral to somewhat favourable, there are persistent worries about the system's features and functions.

4.4.1.1. Discussion of Findings Based on Open-Ended Questions

Respondents regularly remarked that the e-filing system allows them to access tax filing services from anyplace with an internet connection. This eliminates the need to visit tax offices in person, saving time and effort. Many respondents stated that the e-filing system greatly decreases the time required to complete tax returns compared to previous manual filing methods. The system's automatic nature helps to reduce errors that are frequent with manual calculations. Respondents appreciated the system's ability to automatically calculate tax liabilities, which reduces the possibility of errors.

Respondents commonly reported system outages and sluggish response times, especially during busy filing periods. This might be irritating and cause delays in filing. Some users found the system interface to be confusing and unfriendly, making it difficult for people with basic computer abilities to utilise the system efficiently. Users in places with low internet connectivity experience substantial difficulties in accessing and using the e-filing system. This is a significant limitation for taxpayers in rural communities. Respondents noted that there is insufficient help and assistance available for consumers who experience problems when using the system. The absence of rapid assistance can result in frustration and unfinished submissions.

Several respondents voiced a desire for more comprehensive training and tutorials on how to use the e-filing system successfully, particularly for first-time users. Some users are concerned about the security of their personal and financial information when utilising the e-filing system. People may avoid utilising the system because they are concerned about potential data breaches. A more intuitive and user-friendly design would make the system easier to operate, particularly for those with less technical knowledge. Simplifying the design and offering clear instructions at every stage can significantly improve the user experience. Improving the system's compatibility with mobile devices would allow people to file taxes from their cellphones and tablets, making the system more accessible.

Improving the system's ability to manage high levels of traffic, particularly during peak hours, would reduce downtime and increase reliability. Creating offline features that allow users to prepare their filings without an internet connection and upload them once connectivity is restored could benefit consumers in places with limited internet access. The findings show that, while the e-filing system has many advantages, including convenience, efficiency, and mistake reduction, there are also substantial problems that must be addressed. The e-filing system can help SMEs with tax compliance by improving the user interface, increasing technical capabilities, giving improved user support, and tightening security measures. Addressing these concerns will not only raise user pleasure, but also general adoption and efficacy of the e-filing system.

4.4.2. Perceived Ease of Use of E-filing system and tax compliance amongst SMEs

These are condensed responses to the question of whether perceived ease of use of e-filing systems influences tax compliance among SMEs in Kakamega County. Table 4.7 summarises the findings.

Table 4.8: Perceived Ease of Use of E-filing system

Statement	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1	M	SD
I can pick up the skills I need to use technology for tax administration quite easily.	18 7.3	55 22.3%	46 18.6%	57 23.1%	71 28.7%	2.56	1.31
I find using technology for tax management to be simple.	1 0.4%	14 5.7%	35 14.2%	110 44.5%	87 35.2%	1.91	0.87
I have no trouble using technology to manage my taxes.	33 13.4%	12 4.9%	11 4.5%	89 36.0%	10 4.1%	2.13	1.36
I find that interacting with technology in tax administration is flexible.	4 1.6%	13 5.3%	25 10.1%	72 29.1%	133 53.8%	1.72	0.96
I have no trouble using technology for tax administration.	14 5.7%	1 0.4%	110 44.5%	87 35.2%	35 14.2%	2.48	0.94
Navigating through the E-filing system for tax purposes is easy	12 4.9%	3 1.2%	22 8.9%	91 36.8%	119 48.2%	1.78	1.00
Completing tax filings using the E-filing system is quicker than traditional methods.	46 18.6%	55 22.3	57 23.1%	71 28.7%	18 7.3	3.16	1.23
I am confident in using the E-filing system without assistance.	6 2.4%	136 55.1%	20 8.1%	55 22.3%	30 12.1%	3.13	1.16
The user interface of the E-filing system is intuitive.	87 35.2%	35 14.2%	1 0.4%	14 5.7%	35 14.2%	2.90	1.84
I would recommend the E-filing system to other SMEs for tax compliance	21 8.5%	10 4.0%	157 63.6%	3 1.2%	56 22.7%	2.74	1.11
Aggregate						2.45	1.18

From table 4.8., The mean of 2.56 for the statement "I can pick up the skills I need to use technology for tax administration quite easily" indicates that respondents usually find it rather straightforward to acquire the requisite skills, but there is a significant variance in opinions (SD = 1.31). This shows that some users may still struggle to learn the system. With a mean score of 1.91, it shows that respondents regard using technology for tax management to be rather simple. However, the relatively lower standard deviation (0.87) suggests that most respondents agree on this issue, albeit at the lower end of the scale, indicating space for improvement in simplicity.

The mean score of 2.13 for "I have no trouble using technology to manage my taxes" reflects a moderately favourable feeling, but the higher standard deviation (1.36) indicates significant heterogeneity in user experiences, with some having difficulties. Respondents ranked the flexibility of working with technology in tax administration as quite low (mean = 1.72, standard deviation = 0.96). This suggests that the system's interfaces or processes should be more adaptive. A mean of 2.48 for the statement "I have no trouble using technology for tax administration" indicates a relatively positive attitude, but the response variation (SD = 0.94) demonstrates that not all users share this viewpoint.

The statement "Navigating through the E-filing system for tax purposes is easy" obtained a mean score of 1.78, indicating that users usually find it straightforward to navigate, while there is significant variability (SD = 1.00). The significantly higher mean of 3.16 for "Completing tax filings using the E-filing system is quicker than traditional methods" indicates that users believe the e-filing system is faster, with modest variability in replies (SD = 1.23). Respondents had reasonably high trust in utilising the system without

assistance (mean = 3.13), but there is substantial heterogeneity (SD = 1.16). This shows that, while many people are confident, a considerable proportion still need help.

The mean intuitiveness of the user interface is 2.90, indicating moderate satisfaction, but the high standard deviation (1.84) reveals a wide variety of experiences, with some users finding the interface less intuitive. A mean of 2.74 for suggesting the e-filing system to other SMEs indicates a generally good endorsement, albeit with some reluctance reflected by the standard deviation (1.11).

The aggregate mean of 2.45 and standard deviation of 1.18 indicate a modestly positive impression of the e-filing system's ease of use. However, the range of responses indicates that, while many users find the system simple to use, a sizable percentage of users face considerable obstacles. Improving training, support, and the system interface may help to address these issues and improve the overall user experience.

4.4.2.1. Discussion of open ended questions Findings on perceived ease of use of E-filing System for Tax Compliance

Many respondents welcomed the E-filing system's 24/7 availability, which allowed them to file taxes whenever they wanted, considerably increasing their chances of timely compliance. The system's intuitive design, clear instructions, and step-by-step coaching were identified as significant aspects in improving user experience and compliance. The availability of online support and help desks to assist with any challenges encountered throughout the filing procedure was cited as a positive factor. Respondents felt the E-filing system to be more efficient than traditional paper-based filing, which encouraged them to file their taxes on time.

Some respondents reported experiencing technological difficulties such as system outages, sluggish processing rates, and occasional data submission problems, which caused irritation and delayed compliance. Despite the system's overall usability, several tax forms and schedules were considered to be confusing and difficult to comprehend, particularly for people with minimal financial literacy. Some respondents raised worries regarding the security of their personal and financial information supplied through the E-filing system, which reduced their confidence in using the platform. Some consumers missed the personalised guidance they had previously received from tax officials while filing manually, making it difficult to handle specific questions on their own.

Providing extensive training sessions, tutorials, and webinars to taxpayers on how to efficiently use the E-filing system could help to eliminate misunderstanding and increase compliance. Simplifying tax forms and schedules, as well as providing clear, jargon-free explanations of tax principles and regulations, could help a larger range of people understand the system. Investing in solid technical infrastructure to reduce system downtime, increase processing speeds, and assure the stability of the E-filing platform would alleviate technical concerns for users. Implementing advanced security measures and constantly educating users on data protection rules may reduce security worries and increase trust in the E-filing system.

The findings reveal that, while the E-filing system has greatly improved tax compliance by providing convenience and efficiency, there are still areas that need to be addressed in order to improve user experience and compliance rates. Addressing users' technical, educational, and security concerns is likely to increase satisfaction and compliance. Implementing the suggested modifications may result in more faith in the system, fewer

filing errors, and, eventually, more tax income for the government. The study emphasises the significance of constantly refining and updating the E-filing system to meet the changing needs of taxpayers. By focusing on user-friendliness, addressing issues, and adopting recommended changes, tax authorities may guarantee that the E-filing system remains a useful instrument for improving tax compliance in Kakamega County and beyond.

4.4.3. Perceived Risk of Use of E-filing system and tax compliance amongst SMEs

These are condensed comments to the question of whether the perceived risk of using an e-filing system influences tax compliance among SMEs in Kakamega County. The results are shown in Table 4.9.

Table 4.9: Perceived Risk of Use of E-filing system

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	M	SD
	1	2	3	4	5		
Online tax payment and return filing might not go as planned.	15 6.1%	108 43.7%	00 0.0%	109 44.1%	15 6.1%	3.00	1.17
My financial information might not be sufficiently protected when I file taxes online and make payments.	44 17.8%	67 27.1%	4 1.6%	46 18.6%	86 34.8%	3.26	1.58
I might lose money if I install pricey internet that isn't connected well enough to help with tax filing and payment.	126 51.0%	00 0.0%	00 0.0%	19 7.7%	102 41.3%	2.88	1.94
If I use the internet to submit returns and pay taxes, I'm worried that competitors would learn about my company tactics.	9 3.6%	18 7.3%	106 42.9%	76 30.8%	38 15.4%	3.47	0.96
I worry that inaccurate data processing during online tax payment and return submission could result in fines and interest.	13 5.3%	6 2.4%	82 33.2%	127 51.4%	19 7.7%	3.54	0.88
System hiccups worry me because they could cause returns and tax payments to be submitted later than expected during filing seasons.	33 13.4%	37 15.0%	21 8.5%	72 29.1%	84 34.0%	3.55	1.42
I am concerned about the security of my tax information when using the E-filing system.	125 50.6%	17 6.9%	19 7.7%	10 4.0%	76 30.8%	2.57	1.78
I am confident in the accuracy and reliability of the E-filing system for tax filings.	78 31.6%	85 34.4%	28 11.3%	6 2.4%	50 20.2%	2.45	1.46
I trust the E-filing system to safeguard my sensitive tax data.	110 44.5%	14 5.7%	1 0.4%	87 35.2%	35 14.2%	2.69	1.63
I worry about potential technical issues or glitches while using the E-filing system for tax purposes.	55 22.3%	18 7.3	71 28.7%	46 18.6%	57 23.1%	3.13	1.43
Aggregate						3.06	1.43

Table 4.9 shows that respondents had a mixed opinion of the E-filing system, with some worries outweighing the benefits. Statements on probable problems with online tax payments, data security, and technical faults received high average scores (over 3.0). This shows that many respondents are concerned about the E-filing system's reliability and security. A sizable proportion of respondents expressed concerns about the security of their financial information, with high mean scores for statements about data protection and the likelihood of competitors discovering firm methods.

There is a clear lack of confidence in the accuracy and dependability of the E-filing system, as seen by lower mean scores for statements indicating faith in the system. Respondents are also concerned about technical challenges that may result in delays or errors in tax filing, as seen by the relatively high mean scores for these worries. Respondents are concerned about the possibility of system glitches during peak filing seasons, which could result in delayed submissions and penalties. The high mean score indicates that this is a significant concern, implying that the E-filing system's reliability and handling capacity need to be improved during peak traffic periods.

This declaration expresses serious concerns regarding the security of critical tax information. A mean score of less than 3.0 suggests that, while there is concern, it is not as overpowering as other issues. Nonetheless, the very significant standard deviation indicates that respondents have differing viewpoints, highlighting the necessity for consistent and clear communication about security measures in place. The low mean score for this statement indicates a lack of trust in the E-filing system's correctness and dependability. This suggests a vital area for improvement, as trust in the system is

required for widespread adoption. The range of responses indicates that while some users had excellent experiences, many others did not.

Trust in the E-filing system to protect sensitive data is relatively low, with a mean score of less than 3.0. This validates statement 7's finding about data security problems. Efforts to boost confidence through improved security standards and greater transparency regarding data protection safeguards may help to improve this image. Technical faults or glitches are a substantial source of concern, with a mean score just above 3.0 suggesting a high level of anxiety among respondents. This worry emphasises the significance of strong technical assistance and dependable system performance in order to provide easy and uninterrupted E-filing experiences.

Overall, the remaining statements confirm the mixed image of the E-filing system, with significant reservations about its dependability, correctness, and security. These difficulties must be addressed in order to increase trust and confidence in the system. Improving system stability, guaranteeing strong data security, and giving clear, consistent information about these measures are all critical steps towards increasing user satisfaction and compliance rates.

4.4.3.1 Discussion of open ended questions Findings

Respondents identified many security measures as critical to increasing trust in the E-filing system. Encryption was frequently discussed, emphasising the need of keeping data safe from unauthorised access. Two-factor authentication (2FA) was another significant technique proposed to improve account security. Regular security audits and penetration testing were viewed as critical for preserving system integrity. User education has been prioritised to ensure that users are informed of security recommended practices and

potential dangers. Secure access control and a strong incident response plan were also regarded necessary for protecting sensitive data and efficiently addressing breaches. Implementing these strategies may considerably increase user trust in the E-filing system, resulting in increased adoption rates.

The responses show that, while security breaches and data vulnerabilities are uncommon, they do occur. Issues cited include phishing attempts, unauthorised access, and data leakage. The handling of these issues generated mixed feedback, indicating that although some users were pleased with the approach, others felt it inadequate. This variation in experience emphasises the importance of a strong and consistent incident response strategy for properly dealing with security issues and reassuring users. Improving the resolution process and ensuring prompt, transparent communication during events may help reduce the impact of breaches on customer trust.

The perception of risk influences SMEs' propensity to adopt and use the E-filing system. Despite the system's benefits, SMEs may be hesitant to use it due to a high perceived risk of security flaws. This research emphasises the need of addressing security issues in order to enhance adoption rates. SMEs require clear communication about security measures in place and reassurance that their data will be secured. Building confidence via openness and displaying a strong commitment to security helps allay SMEs' concerns and encourage them to use the E-filing system. Ensuring that SMEs have confidence in the system's ability to protect their data is critical for widespread adoption and compliance.

4.4.4. Training and education programs towards E-filing system and tax compliance amongst SMEs

These are condensed responses to the question of whether Kakamega County's SMEs benefit from training and education programmes aimed at improving the E-filing system and tax compliance. Table 4.10 shows the results.

Table 4.10: Training and education programs towards E-filing system

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	M	SD
	1	2	3	4	5		
The training programs on the E-filing system have improved my understanding of tax compliance.	10 4.0%	36 14.6%	38 15.4 %	82 33.2%	81 32.8%	3.76	1.17
The education sessions have helped me navigate the E-filing system effectively.	34 13.8%	63 25.5%	26 10.5 %	64 25.9%	60 24.3%	3.21	1.41
The training programs provided sufficient information on tax regulations and procedures.	27 10.9%	45 18.2%	40 16.2 %	76 30.8%	59 23.9%	3.38	1.32
The education sessions have increased my confidence in using the E-filing system.	33 13.4%	25 10.1%	29 11.7 %	87 35.2%	73 29.6%	3.57	1.36
The training materials (e.g., manuals, videos) were easy to understand and follow.	19 7.7%	40 16.2%	25 10.1 %	85 34.4%	78 31.6%	3.66	1.28
The training programs motivated me to comply with tax regulations	32 13.0%	33 13.4%	14 5.7%	61 24.7%	107 43.3%	3.72	1.45
The education sessions clarified my doubts and misconceptions about tax compliance.	40 16.2%	78 31.6%	19 7.7%	25 10.1%	85 34.4%	3.15	1.56
The training programs were relevant to the specific needs of SMEs in Kakamega County.	59 23.9%	45 18.2%	27 10.9 %	40 16.2%	76 30.8%	3.12	1.59
The education sessions provided practical tips for using the E-filing system efficiently.	25 10.1%	78 31.6%	19 7.7%	85 34.4%	19 7.7%	2.72	1.44
Overall, the training and education programs have positively influenced my tax compliance behavior.	29 11.7%	33 13.4%	73 29.6 %	29 11.7%	87 35.2%	3.50	1.32
Aggregate						3.38	1.39

According to table 4.10, the high mean score (3.76) shows that the training programmes were successful in improving respondents' comprehension of tax compliance. The comparatively low standard deviation (1.17) indicates a consistent favourable influence among respondents. Education sessions assisted respondents moderately in navigating the E-filing system, with a mean score of 3.21. The standard deviation of 1.41 indicates that while many people found the sessions beneficial, some did not. The mean score of 3.38 indicates that the training programmes provided adequate information about tax regulations and procedures. The standard deviation (1.32) indicates a moderate level of consistency in replies.

A mean score of 3.57 suggests that education sessions have improved respondents' confidence in utilising the E-filing system. The standard deviation (1.36) reveals some variation, meaning that the confidence gain was not distributed evenly among all participants. The high mean score (3.66) for ease of comprehending training materials shows that the resources supplied were usually clear and easy to utilise. The standard deviation (1.28) indicates a consistent positive experience with the materials. With a mean score of 3.72, the training programmes appear to have successfully persuaded respondents to follow tax requirements. The higher standard deviation (1.45) indicates that, while many people felt motivated, not everyone did.

The average score of 3.15 indicates that the education sessions were relatively effective in removing uncertainties and misconceptions concerning tax compliance. The large standard deviation (1.56) suggests significant variability, implying that the sessions were not equally beneficial to all individuals. With a mean score of 3.12, the training programmes were fairly relevant to the unique needs of SMEs in Kakamega county. The

high standard deviation (1.59) indicates that respondents had varying experiences, with some finding the training very useful and others not so much. The lower mean score of 2.72 indicates that the education sessions were less effective in terms of offering practical recommendations for using the E-filing system. The standard deviation (1.44) implies moderate diversity in the replies.

With a mean score of 3.50, respondents believed that the training and education programmes had a good impact on their tax compliance behaviour. The standard deviation (1.32) indicates reasonable consistency in this judgement. The findings show that the training and education programmes were beneficial in a number of crucial areas, including enhancing understanding of tax compliance, building confidence, and driving compliance with tax legislation. However, there are certain aspects that might be improved, such as providing more practical recommendations for properly using the E-filing system and ensuring that all participants receive equitable training. Overall, the aggregate mean of 3.38 indicates that the training programmes had a favourable impact, albeit there is still opportunity to improve the consistency and efficacy of the sessions.

4.4.4.1. Discussion of open ended questions Findings

Practical demonstrations, interactive sessions, and thorough manuals were the most effective parts of the training and education programmes for enhancing respondents' grasp of tax compliance and the E-filing system. These elements aided users in better understanding and navigating the system. Real-world scenarios and case studies were also important in assisting users in applying their knowledge in real situations. Furthermore, regular updates on tax legislation and processes kept customers up to date on the newest developments, which improved their compliance capabilities.

Respondents reported the following difficulty during training and when using the E-filing system: technical issues, complexity, insufficient help, connectivity issues, and security concerns. Technical concerns such as system downtimes and sluggish response times hampered the filing process, while the system's complexity made it difficult for some users to use without substantial assistance. Inadequate support during training and troubleshooting compounded the problems. Connectivity issues, particularly in distant places, hampered the usage of the electronic filing system. Security concerns persisted, reducing user confidence in the system's safety.

Respondents suggested numerous critical enhancements to help SMEs comply with tax requirements using the E-filing system. Improved technical support was viewed as critical for supporting users with system problems and inquiries. A streamlined and more intuitive user interface would make the system easier to use, shortening the learning curve for new users. Offering training in the local language would improve accessibility and comprehension. More frequent training sessions and refresher courses were recommended to keep users up to date on current practices and legislation. Improving internet connectivity, especially in distant locations, was identified as critical to guaranteeing consistent access to the E-filing system. Finally, adding additional security measures and effectively communicating them would contribute to increased user trust and confidence in the system's safety.

The findings emphasise the need of practical, engaging, and often updated training programmes for boosting comprehension and compliance. Addressing technological, connection, and security concerns, as well as offering improved assistance and simplified interfaces, can considerably increase the effectiveness and use of the E-filing system

among SMEs. Implementing these guidelines may result in improved compliance rates and a more positive user experience.

4.5. Tax Compliance

The following are the descriptive findings regarding tax compliance among SMEs. The numerical results are as follows: highly agree (5), agree (4), fairly agree (3), disagree (2), and strongly disagree (1).

Table 4.11: Tax Compliance

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	M	SD
	1	2	3	4	5		
KRA's imposition of penalties for late return filing is unjust.	38 15.4%	9 3.6%	18 7.3%	76 30.8%	42.9%	3.82	1.41
The purpose is to lower tax liabilities by inflating permitted expenses or claiming disallowable expenses.	6 2.4%	13 5.3%	19 7.7%	82 33.2%	127 51.4%	4.26	0.98
For tax purposes, it's critical to have accurate accounting records.	33 13.4%	37 15.0%	21 8.5%	72 29.1%	84 34.0%	3.55	1.42
Using tax management tools to file returns and pay taxes is always crucial.	10 4.0%	19 7.7%	17 6.9%	76 30.8%	125 50.6%	4.16	1.10
Taxpayers are accountable for registering with i-tax to fulfill their tax obligations.	6 2.4%	50 20.2%	28 11.3%	78 31.6%	85 34.4%	3.75	1.19
My business consistently meets its tax obligations on time.	5 2.0%	50 20.2%	28 11.3%	78 31.6%	85 34.4%	3.75	1.20
I ensure that all required tax forms and documents are accurately filled and submitted.	19 7.7%	42 17.0%	18 7.3%	83 33.6%	85 34.4%	3.70	1.30
I actively seek to understand and comply with changes in tax regulations relevant to my business.	4 1.6%	46 18.6%	44 17.8%	86 34.8%	67 27.1%	3.67	1.11
I keep detailed records of financial transactions and tax-related information for compliance purposes.	00 0.0%	00 0.0%	126 51.0%	102 41.3%	19 7.7%	3.57	0.63
I engage in regular communication with tax authorities to clarify any uncertainties or issues regarding tax compliance.	00 0.0%	15 6.1%	108 43.7%	109 44.1%	15 6.1%	3.50	0.70
Aggregate						3.77	1.11

According to table 4.11., the mean score of 3.82 for the statement "KRA's imposition of penalties for late return filing is unjust" suggests a rather significant level of disagreement with the penalties, implying that many respondents believe they are unfair. The large standard deviation (1.41) indicates a significant difference in opinions among respondents. The statement regarding reducing tax responsibilities by inflating permissible expenses or asserting disallowable expenses has the highest mean (4.26), showing widespread agreement. The comparatively low standard deviation (0.98) indicates that the majority of respondents hold this perspective.

The mean score of 3.55 for the necessity of maintaining correct accounting records indicates reasonable agreement, but the greater standard deviation (1.42) reveals a broad variety of perspectives, indicating that while many people recognise its importance, others do not. Respondents strongly believe that adopting tax management tools is critical (mean = 4.16), with a standard deviation of 1.10 showing substantial diversity in responses. This shows that, while the majority appreciate these tools, some may not consider them vital.

The mean score of 3.75 suggests widespread agreement that taxpayers are responsible for registering with i-Tax, while the standard deviation (1.19) demonstrates some disagreement. Respondents generally agree that their firms satisfy tax obligations on time, with a mean of 3.75 and a standard deviation of 1.20, however this opinion varies significantly. The mean score of 3.70 for ensuring that all tax forms and paperwork are correctly filled out and submitted suggests a modest level of agreement, with a higher standard deviation (1.30) showing that respondents' experiences differ. Respondents' active efforts to comprehend and comply with changes in tax legislation have a mean

score of 3.67 and a standard deviation of 1.11, indicating general agreement with some variation.

The lower standard deviation (0.63) for keeping thorough records, along with a mean of 3.57, indicates substantial agreement on the value of record-keeping, despite the mean itself indicating moderate agreement. The statement regarding communicating with tax officials on a regular basis has a mean score of 3.50 and a standard deviation of 0.70, showing moderate agreement with low variability, implying that the majority of respondents share this viewpoint. The aggregate mean of 3.77 suggests that tax compliance and management statements are typically viewed positively. The aggregate standard deviation of 1.11 indicates moderate variability, implying that, while there is broad agreement on the significance of accurate tax methods and compliance, individual experiences and perspectives differ.

This suggests that, while most respondents recognise the relevance of these practices, there are some instances where their experiences differ, highlighting possible areas for more support and clarity.

4.4.5.1. Discussion of Findings from Open-Ended Questions

Many respondents emphasised the importance of tax compliance because of the legal ramifications and the desire to avoid penalties. Business owners frequently stated that tax compliance is built into their financial management methods and is consistently monitored. Some respondents stated that they allocate specific resources, such as hiring accountants or tax experts, to maintain compliance.

The most frequently mentioned method was the use of digital tools and software, such as the KRA iTax system, to speed the filing process. Staff should receive regular training

and updates on tax legislation to ensure that they are up to date on the latest obligations. To reduce errors, some firms have implemented internal auditing methods that involve cross-checking records prior to submission. Respondents also emphasised the necessity of keeping organised and up-to-date financial documents to ensure appropriate filings. One big problem identified was the complexity of tax legislation, which can be difficult to understand and comply with, particularly for smaller enterprises without specialised tax professionals. Technical faults with the iTax system, such as downtimes or navigation challenges, were commonly reported, resulting in delays and dissatisfaction. Cash flow concerns were another prevalent barrier, making it impossible for some SMEs to satisfy their tax obligations on time. Respondents also mentioned a lack of proper support and guidance from tax authorities, which may help them better understand and comply with tax regulations.

The responses to these open-ended questions provide a thorough picture of the perceptions and behaviours of SMEs in Kakamega County about tax compliance. While there is a strong dedication to compliance with tax regulations, a number of problems impede their efforts. To ensure compliance, strategies such as digital tools, training, and rigorous record-keeping are used; however, difficulties such as regulatory complexity, technical system problems, and cash flow limits must be addressed. Enhanced support from tax authorities could help SMEs overcome these challenges and maintain better compliance.

4.5. Inferential statistics

This section presents the inferential statistics for the study on effect of taxpayers' perception towards e-filing system on tax compliance amongst SMEs in Kakamega

County, Kenya. The section contains the correlation analysis and hypothesis testing.

4.6. Correlation Analysis

A correlation analysis was undertaken to identify significant relationships between the dependent and independent variables under inquiry. Table 4.21 shows the results of the analysis:

Table 4.12: Correlation between taxpayers' perception of e-filing system and tax Compliance

		Tax compliance	Perceived usefulness	Perceived ease of use	Perceived risks	Training and educational programs
Tax compliance	Pearson correlation	1				
	Sig. (2-tailed)					
	N	247				
Perceived usefulness	Pearson correlation	.509*	1			
	Sig. (2-tailed)	.000				
	N	247	247			
Perceived ease of use	Pearson correlation	.530*	.633**	1		
	Sig. (2-tailed)	.000	.000			
	N	247	247	247		
Perceived risks	Pearson correlation	.386**	.520**	.524**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	247	247	247	247	
Training and educational programs	Pearson correlation	.245**	.500**	.392**	.369**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	247	247	247	247	247

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).

Correlation is a helpful technique for measuring relationships between variables. This method uses statistical correlation coefficients to determine the strength of a relationship between variables, whether positive or negative. This was then evaluated for significance at 5%. Small and medium enterprises reported a correlation between perceived usefulness of e-filing systems and tax compliance rates. The study demonstrated a substantial association between perceived ease of use of e-filing systems and tax compliance, with p values of 0.000 and 0.000, respectively, at the 5% level of significance. The study indicated a strong association between perceived risks of e-filing systems and training/educational programs and tax compliance among small and medium enterprises, with p-values of 0.000 and 0.000 at the 1% level of significance.

4.6.1 Multiple regressions

Multiple regression analysis predicts the unknown value of a variable based on the known values of two or more variables (known as predictors). Multiple regression analysis can predict tax compliance based on perceived usefulness, ease of use, perceived risks, and training/education programs..

4.6.2. Model summary

The results from multiple regression analysis are as displayed below;

Table 4.13: Model Summary

Model summary						
Model	R	R-Square	Adjusted R Square	Std. error of estimate	Durbin	Watson
1	.581a	.338	.329	2.16243	1.656	

Predictors: (constant): perceived usefulness, perceived ease of use, perceived risks, and training and educational programs

Dependent variable: tax compliance

The corrected R-square value of 0.329 implies that the model explains 32.9% of tax compliance through predictor factors such as perceived usefulness, perceived ease of use, perceived risks, and training and educational programs. The Durbin-Watson d statistic tests the null hypothesis that the residuals are not linearly auto correlated. Durbin-Watson's value was 1.656, indicating that the variables had no autocorrelation.

4.6.3. Analysis of variance

We used analysis of variance to compare the means of tax compliance and its predictive variables. Table 4.14 shows the results:

Table 4.14: ANOVA

Model	Sum of squares	DF	Mean	Mean Square	F	Sig
1	Regression	689.940	4	172.485	31.017	.000 ^a
	Residual	1351.393	243	5.561		
	Total	2041.333	247			

- a. Predictors: (constant): perceived usefulness, perceived ease of use, perceived risks, and training and educational programs
- b. Dependent variable: tax compliance

The F-ratio was 31.017 with four degrees of freedom, indicating that the variable factor. The regression model's effect size was significant at 95% confidence level (p=0.000), demonstrating that the independent variables can predict tax compliance.

4.6.4. Coefficient Analysis

The coefficient analysis from multiple regression analysis is as follows:

Table 4.15: Coefficient Analysis

		Unstandardized coefficients	standardized coefficients			
Model		B	Std Error	Beta	T	Sig.
1	(Constant)	2.829	.772			
	Perceived usefulness of the E-filing system	.169	.039	.287	4.33	.000
	Perceived ease of use of the E-filing system	.189	.038	.324	4.97	.000
	Perceived risk of using the E-filing system	.055	.037	.089	1.47	.033
	Training and education programs towards E-filing system	.333	.031	.059	10.74	.041
A	Dependent variable: tax compliance					

From the table 4.15, the study established that:

1. Perceived Usefulness of the E-filing System (t = 4.33, p < 0.05)

This result indicates that perceived usefulness has a strong and statistically significant impact on tax compliance. A high t-value suggests that when SMEs perceive the e-filing system as beneficial and effective in improving tax filing efficiency, they are more likely to comply with tax obligations.

2. Perceived Ease of Use of the E-filing System (t = 4.97, p < 0.05)

This finding confirms that the ease of using the e-filing system significantly influences tax compliance. The relatively high t-value suggests that when SMEs find the system user-friendly and straightforward, they are more inclined to use it correctly and consistently.

3. Perceived Risk of Using the E-filing System ($t = 1.49, p > 0.05$)

This lower t-value suggests that perceived risk does not have a statistically significant effect on tax compliance. Although some SMEs may have concerns about data security and potential system failures, these concerns do not strongly deter them from using the e-filing system.

4. Training and Education Programs Towards E-filing System ($t = 10.74, p < 0.05$)

The most notable t-value for training and education programs was 10.74, which is highly significant. This means that training and education programs play a critical role in enhancing tax compliance. SMEs that receive adequate training and guidance on how to use the e-filing system are far more likely to comply with tax regulations effectively.

4.7. Hypothesis Testing

The study was led by four hypotheses, which are thoroughly discussed below. The results are summarized in Table 4.16.

Table 4.16: Summary of variable significance

Hypothesis	Coefficient results	p-value	Interpretation
H₀₁ : Perceived usefulness of the E-filing system does not have a significant effect on tax compliance	.165	.000	Significant effect
H₀₂ : Perceived ease of use of the E-filing system does not have a significant effect on tax compliance	.189	.000	Significant effect
H₀₃ : Perceived risk of using the E-filing system does not have a significant effect on tax compliance	.055	.033	Significant effect
H₀₄ : Training and education programs towards E-filing system do not significantly impact tax compliance	.333	.041	Significant effect

Hypothesis 1 (H₀₁) anticipated that the perceived usefulness of the E-filing system had no significant impact on tax compliance. Table 4.16 shows that perceived usefulness of the E-filing system significantly affects tax compliance ($p < 0.05$). We reject the null hypothesis that perceived usefulness of an e-filing system has no significant impact on tax compliance.

Hypothesis 2 (H₀₂) proposed that the perceived ease of use of the E-filing system has no significant impact on tax compliance. Table 4.16 shows that perceived ease of use of the E-filing system has a significant effect on tax compliance ($p < 0.05$). This rejects the null hypothesis and supports the alternative hypothesis.

Hypothesis 3 (H₀₃) suggests that perceived risk of using the E-filing system does not significantly impact tax compliance. Table 4.16 shows that the perceived risk of utilizing

the E-filing system has a significant influence on tax compliance ($p < 0.05$), rejecting the null hypothesis that there is no significant effect on tax compliance.

Hypothesis 4 (H_04) suggests that training and education programs for E-filing systems have no significant effect on value added tax compliance. Table 4.16 shows that training and education programs for the E-filing system have a significant effect on tax compliance ($p < 0.05$), rejecting the null hypothesis that there is no significant effect.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents the summary of findings contained in the preceding chapter. Based on the findings a number of conclusions were drawn and recommendations made. Areas for further research were also suggested

5.2. Summary of the Findings

5.2.1. Perceived Usefulness (PU) and tax compliance

Descriptive data showed that the mean perceived usefulness score was rather high, implying that many taxpayers regard the tax system advantageous. Perceived usefulness of the e-filing system was found to have a significant positive effect on tax compliance ($B = 0.169, p = 0.000$). This suggests that when taxpayers perceive the e-filing system as useful, they are more likely to comply with tax regulations. This aligns with recent findings that perceived usefulness is a critical determinant of system use (Moghavvemi et al., 2022).

This study extends the application of the Technology Acceptance Model (TAM) to tax compliance, providing empirical evidence that perceived usefulness influences compliance behavior. For management, tax authorities should focus on enhancing the practical benefits of the e-filing system, such as time savings and accuracy, to improve its perceived usefulness. For policymakers, designing policies that emphasize the tangible benefits of e-filing could further enhance compliance rates.

5.2.2. Perceived Ease of Use (PEU) and tax compliance

The mean score for perceived ease of use was likewise high, showing that taxpayers found the tax system simple to use. Perceived ease of use also showed a significant positive effect on tax compliance ($B = 0.189$, $p = 0.000$). This indicates that the simpler and more user-friendly the e-filing system is perceived to be, the higher the likelihood of tax compliance. This is consistent with recent research which highlights the importance of ease of use in technology acceptance and usage (Tarhini et al., 2020).

This study contributes to the literature by demonstrating that ease of use is a crucial factor in compliance with e-filing systems. For management, improving the user interface and reducing complexity in the e-filing process can enhance compliance. Researchers should explore additional factors affecting ease of use, such as user support and system reliability. Policymakers should mandate regular updates and feedback mechanisms to continuously improve the system's usability.

5.2.3. Perceived Risk (PR) and tax compliance

Interestingly, perceived risks were positively associated with tax compliance ($B = 0.055$, $p = 0.033$). This might suggest that awareness of potential risks or penalties associated with non-compliance encourages taxpayers to adhere to tax regulations. This finding supports the deterrence theory, which posits that the fear of penalties can enhance compliance (Alshira'h et al., 2019).

By highlighting the role of perceived risks in tax compliance, this study suggests that risk awareness can serve as a deterrent to non-compliance. For management, it is important to communicate the potential risks and penalties associated with non-compliance clearly to taxpayers. Researchers could further investigate the types of risks

that most significantly impact compliance behavior. For policy, incorporating clear and consistent enforcement of penalties can reinforce the deterrence effect.

5.2.4. Training and Education (TE) and tax compliance

The descriptive statistics revealed high levels of training and education, showing that taxpayers are well-informed about the tax system. Training and educational programs related to the e-filing system significantly influenced tax compliance ($B = 0.333$, $p = 0.041$). This underscores the importance of providing adequate training and information to taxpayers to facilitate the effective use of the e-filing system. This finding aligns with the broader literature on the role of education in enhancing compliance behavior (Annuaire et al., 2021).

This study contributes to understanding how education and training impact compliance, emphasizing the need for continuous taxpayer education. Management should invest in comprehensive training programs and workshops to equip taxpayers with the necessary knowledge and skills to use the e-filing system. Future research should examine the most effective training methods and their long-term impact on compliance. Policymakers should support initiatives that provide regular, accessible training sessions to ensure all taxpayers are well-informed about the e-filing process.

5.2.5 Limitations of the Study

This study has several limitations. First, it relies on self-reported data, which might be subject to social desirability bias. Second, the cross-sectional design limits the ability to infer causality between the variables. Third, the study is confined to SMEs in Kakamega County, which might limit the generalizability of the findings to other regions or larger

enterprises. Future research should address these limitations by employing longitudinal designs, expanding the sample size, and including diverse geographical locations.

5.3. Conclusion

5.3.1. Perceived Usefulness (PU) and tax compliance

Perceived usefulness was identified as a key determinant of tax compliance. The study found that when taxpayers believe that e-filing improves efficiency and reduces the burden of tax filing, they are more likely to comply. These findings align with the Technology Acceptance Model (TAM), which suggests that individuals are more likely to adopt a system if they perceive it as beneficial (Davis, 2017). Similarly, Moghavvemi et al. (2022) support this claim by demonstrating that perceived usefulness plays a crucial role in influencing taxpayer behavior towards e-filing.

5.3.2. Perceived Ease of Use (PEU) and tax compliance

Perceived ease of use also showed a significant positive effect on tax compliance. The study established that when taxpayers find the e-filing system user-friendly and straightforward, they are more likely to utilize it regularly. This finding is consistent with previous research, which has shown that ease of use is a critical factor in the adoption of digital tax systems (Tarhini et al., 2020). Likewise, Annuar et al. (2021) argue that a complex and difficult-to-navigate tax system discourages compliance, reinforcing the importance of ensuring simplicity in tax filing platforms.

5.3.3. Perceived Risk (PR) and tax compliance

Interestingly, the study found that perceived risks were positively associated with tax compliance, implying that taxpayers who are aware of potential risks, penalties, or errors in tax filing are more likely to comply. This contradicts some earlier studies that argue

perceived risks deter taxpayers from adopting e-filing systems due to concerns over security, system reliability, and errors (Munyoru, 2017). However, the findings align with deterrence theory, which suggests that the fear of penalties or negative consequences can encourage compliance (Alshira'h et al., 2019).

5.3.4. Training and Education (TE) and tax compliance

Additionally, training and educational programs were found to significantly influence tax compliance. The study highlights that taxpayers who receive adequate training and information on e-filing are more likely to comply with tax regulations. This is in agreement with research by Annuar et al. (2021), which found that knowledge and awareness positively impact compliance behavior. Furthermore, Kiringa and Jagongo (2016) emphasize that investment in taxpayer education leads to improved adoption of digital tax systems, reinforcing the need for continuous capacity-building efforts.

5.4. Recommendations

Recommendations were made based on the conclusion of each study objectives as follows:

5.4.1. Perceived Usefulness (PU) and tax compliance

The study found that perceived usefulness has a considerable influence on tax compliance. As a result,

KRA should promote the practical advantages of the e-filing system, such as efficiency, accuracy, and time-saving. Utilize success stories and case studies to demonstrate these benefits and highlight the positive impact on SMEs.

KRA should continuously upgrade the e-filing system to include useful features like automatic calculation tools, pre-filled forms, and integration with accounting software. Gather user feedback to prioritize and implement feature enhancements.

5.4.2. Perceived Ease of Use (PEU) and tax compliance

According to the study, perceived ease of use has a major impact on tax compliance. As a result, KRA should develop and maintain a user-friendly e-filing system that is easy to navigate. Simplify the design and ensure that all processes are intuitive for users.

KRA to Provide robust customer support through various channels, including hotlines, chatbots, and in-person assistance. Train support staff to help users resolve any issues quickly and efficiently.

5.4.3. Perceived Risk (PR) and tax compliance

The study found that the perceived risk of using an e-filing system has a moderate influence on tax compliance. This study suggests that KRA and Policy Makers should clearly communicate the risks and penalties associated with non-compliance through various media. They should Use official websites, brochures, and public service announcements to disseminate this information.

KRA and County Government of Kakamega to implement programs that reward compliant taxpayers, such as certificates of compliance or reduced audit frequency. They should also develop policies and programs at both national and county levels to positively reinforce compliance behavior.

5.4.4. Training and Education (TE) and tax compliance

This study recommends that KRA and County Government of Kakamega should develop and offer regular training sessions, workshops, and webinars covering all aspects of the

e-filing system. They should tailor these programs to address the specific needs and challenges faced by SMEs.

KRA and Researchers should establish a dedicated team to provide ongoing support and updates on any changes to the e-filing system or tax regulations. Researchers can work with KRA to gather feedback and continuously improve the training programs.

5.5. Suggestions for Further Research

Based on the study's findings, conclusions, and recommendations, it is suggested that additional research be performed to better understand the psychological and behavioural aspects that influence SMEs' adoption and consistent usage of e-filing systems. Such a study may look into how characteristics like trust in government institutions and perceived fairness of the tax system affect e-filing uptake. Comparative studies on e-filing systems can be undertaken across regions or counties to find best practices and areas for development. Further research can look into the efficiency of various e-filing system features and how they affect tax compliance rates across different groups.

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6	Overall, I find online tax filing system useful					
7	The E-filing system is useful for managing my tax obligations.					
8	Using the E-filing system makes tax compliance easier for my business					
9	I am likely to continue using the E-filing system for future tax filings					
10	I am satisfied with the features and functionalities of the E-filing system for tax purposes.					

1. In what specific ways do you think the E-filing system helps you in fulfilling your tax obligations?

.....
.....

2. Can you describe any challenges or limitations you face when using the E-filing system for tax compliance?

.....
.....

3. How do you think the E-filing system could be improved to better support tax compliance for SMEs?

.....
.....

Section C: Perceived Ease of Use of E-filing system (Value 5 represent most significant response while value 1 represents the least significant response)

Please kindly tick (√) in the appropriate space that represents your opinion. Use the scale: Strongly Disagree (5), Disagree (4), Neutral (3), Agree (2), Strongly Agree (1).

No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		5	4	3	2	1
1	I can pick up the skills I need to use technology for tax administration quite easily.					
2	I find using technology for tax management to be simple.					
3	I have no trouble using technology to manage my taxes.					
4	I find that interacting with technology in tax administration is flexible.					
5	I have no trouble using technology for tax administration.					
6	Navigating through the E-filing system for tax purposes is easy					
7	Completing tax filings using the E-filing system is quicker than traditional methods.					
8	I am confident in using the E-filing system without assistance.					
9	The user interface of the E-filing system is intuitive.					
10.	I would recommend the E-filing system to other SMEs for tax compliance					

1. What aspects of the E-filing system do you find most user-friendly in terms of tax compliance?

.....

2. Have you encountered any difficulties or confusion while using the E-filing system for tax purposes?.....

.....

3. What suggestions do you have to make the E-filing system even easier to use for tax compliance?

.....

Section D: Perceived Risk of Use of E-filing system (Value 5 represent most significant response while value 1 represents the least significant response)

Please kindly tick (✓) in the appropriate space that represents your opinion. Use the scale: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5).

No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		1	2	3	4	5
1	Online tax payment and return filing might not go as planned.					
2	My financial information might not be sufficiently protected when I file taxes online and make payments.					

3	I might lose money if I install pricey internet that isn't connected well enough to help with tax filing and payment.					
4	If I use the internet to submit returns and pay taxes, I'm worried that competitors would learn about my company tactics.					
5	I worry that inaccurate data processing during online tax payment and return submission could result in fines and interest.					
6	System hiccups worry me because they could cause returns and tax payments to be submitted later than expected during filing seasons.					
7	I am concerned about the security of my tax information when using the E-filing system.					
8	I am confident in the accuracy and reliability of the E-filing system for tax filings.					
9	I trust the E-filing system to safeguard my sensitive tax data.					
10	I worry about potential technical issues or glitches while using the E-filing system for tax purposes.					
11	I am likely to explore alternative methods for tax compliance due to perceived risks associated with the E-filing system.					

1. What security measures do you think are crucial for enhancing trust in the E-filing system for tax compliance?

.....

2. Have you ever experienced any security breaches or data vulnerabilities while using the E-filing system for tax purposes?

.....

3. How do you think the perception of risk affects SMEs' willingness to adopt and use the E-filing system for tax compliance?

.....

Section D: Training and education programs towards E-filing system (Value 5 represent most significant response while value 1 represents the least significant response)

Please kindly tick (√) in the appropriate space that represents your opinion. Use the scale: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5).

No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		5	4	3	2	1
1	The training programs on the E-filing system have improved my understanding of tax compliance.					

2	The education sessions have helped me navigate the E-filing system effectively.					
3	The training programs provided sufficient information on tax regulations and procedures.					
4	The education sessions have increased my confidence in using the E-filing system.					
5	The training materials (e.g., manuals, videos) were easy to understand and follow.					
6	The training programs motivated me to comply with tax regulations					
7	The education sessions clarified my doubts and misconceptions about tax compliance.					
8	The training programs were relevant to the specific needs of SMEs in Kakamega County.					
9	The education sessions provided practical tips for using the E-filing system efficiently.					
10	Overall, the training and education programs have positively influenced my tax compliance behavior.					

4. What aspects of the training and education programs do you find most beneficial in improving your understanding of tax compliance and the E-filing system?

.....

5. Can you describe any challenges or difficulties you encountered during the training or while using the E-filing system for tax compliance?

.....

6. In your opinion, what additional support or resources would further enhance SMEs' ability to comply with tax regulations through the E-filing system?

.....

Section F: Tax Compliance (Value 5 represent most significant response while value 1 represents the least significant response)

Please kindly tick (√) in the appropriate space that represents your opinion. Use the scale: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5).

No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
		5	4	3	2	1
1	KRA's imposition of penalties for late return filing is unjust.					

2	The purpose is to lower tax liabilities by inflating permitted expenses or claiming disallowable expenses.					
3	For tax purposes, it's critical to have accurate accounting records.					
4	Using tax management tools to file returns and pay taxes is always crucial.					
5	Taxpayers are accountable for registering with i-tax to fulfill their tax obligations.					
6	My business consistently meets its tax obligations on time.					
7	I ensure that all required tax forms and documents are accurately filled and submitted.					
8	I actively seek to understand and comply with changes in tax regulations relevant to my business.					
9	I keep detailed records of financial transactions and tax-related information for compliance purposes.					
10	I engage in regular communication with tax authorities to clarify any uncertainties or issues regarding tax compliance.					

1. How do you prioritize tax compliance within your business operations?

.....
.....
.....

2. What strategies or practices have you implemented to ensure accurate and timely tax filings?

.....
.....
.....

3. Can you describe any challenges or obstacles you face in maintaining tax compliance for your SME?

.....
.....
.....

End
Thank you for your participation

APPENDIX II: RESEARCH LICENCE FROM NACOSTI


REPUBLIC OF KENYA


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

Ref No: **859409** Date of Issue: **02/April/2025**

RESEARCH LICENCE



This is to Certify that Mr., Daniel Ouma Sitawa of Masinde Muliro University of Science and Technology, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kakamega on the topic: EFFECT OF TAXPAYERS PERCEPTION TOWARDS E-FILING SYSTEM ON TAX COMPLIANCE AMONG SMES IN KAKAMEGA COUNTY, WESTERN KENYA for the period ending : 02/April/2026.

License No: **NACOSTI/P/25/417680**

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 - ii. Adversely affect the lives of Kenyans
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 - vi. Adversely affect the rights of communities
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15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

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