

**ELECTRONIC FISCAL RECEIPTING AND INVOICING SOLUTION (EFRIS) TAX SYSTEMS
AND PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN KAMPALA DISTRICT,
UGANDA.**

BY

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**A DISSERTATION SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES & RESEARCH
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DECLARATION

I **Balisanyuka Paul Mulunzi**, hereby declare that this work titled; *Electronic fiscal receipting and invoicing solution tax systems and performance of small scale and medium enterprises (EFRIS), in Kampala Uganda*, is original and to the best of my knowledge has never been submitted to any University or Institution of higher learning for any award. Any source of information used in this work is duly acknowledged.

Signed..... Date.....

Balisanyuka Paul Mulunzi,

APPROVAL

This is to certify that this dissertations titled; *Electronic fiscal receipting and invoicing solution tax systems and performance of small scale and medium enterprises (EFRIS), in Kampala Uganda*, was carried out by Balisanyuka Paul Mulunzi, under my close supervision and its ready to be submitted for examination to the school of graduate studies and research with my approval in partial fulfillment for the a ward of the master's degree of Business Administration(MBA) of Metropolitan internal university

Signed..... Date

DR, BAKUNDANA MARTIN

DEDICATION

I dedicate this research report to my family members and relatives especially my dear parents, Rev. Mulunzi Dasan, my mother Mss Basirika Jane, Spouse and children, for the endless patience and support throughout academic journey.

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LIST OF ABBREVIATIONS

ATAF – African Tax Administration Forum

AU – African Union

EFDs – Electronic Fiscal Devices

EFRIS – Electronic Fiscal Receipting and Invoicing Solutions

EPRC – Economic Policy Research Centre

ETRS – Tax Registration System

E-tax – Electronic Tax System

IMF – International Monetary Fund

OECD – Organization for Economic Co-operation and Development

PEOU – Perceived Ease of Use

PSFU – Private Sector Foundation Uganda

PU – Perceived Usefulness

SME – Small and Medium Enterprise

TAM – Technology Acceptance Model

TRA – Theory of Reasoned Action

UGX – Uganda Shillings

UNCCI – Uganda National Chamber of Commerce and Industry

URA – Uganda Revenue Authority

VAT – Value Added Tax

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SPSS - Statistical Package for Social Sciences and FA1, 2, - Type of business

ABSTRACT

This study examined the impact of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) on the performance of small and medium enterprises (SMEs) in Kampala District, Uganda. Although EFRIS is mandatory, many SMEs primarily use the system for tax compliance, with limited understanding of its broader business benefits. Using a mixed-methods research design, the study targeted SMEs registered under the EFRIS system in Kampala District. A sample of 150 SMEs was selected through a combination of stratified and purposive sampling techniques. Quantitative data were collected using structured questionnaires and analyzed using descriptive statistics, Pearson correlation, and multiple regression analysis with the aid of Statistical Package for the Social Sciences (SPSS) Version 26. Qualitative data were gathered through semi-structured interviews with selected SME owners, managers, accountants, and Uganda Revenue Authority officers and analyzed thematically. The findings revealed that effective and integrated use of EFRIS significantly improves SME financial performance and operational efficiency. Ease of use and system accessibility were found to positively influence operational efficiency, while increased awareness of EFRIS functionalities significantly reduced tax compliance costs. The study concluded that EFRIS should be promoted not only as a tax compliance tool but also as a strategic business management system. Continuous training, improved system usability, and enhanced awareness campaigns by policymakers and tax authorities are recommended to maximize the performance benefits of EFRIS for SMEs.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Small and Medium Enterprises (SMEs) play a critical role in Uganda's economic growth, employment creation, and revenue generation. However, one of the persistent challenges facing SMEs is effective tax compliance, which often affects their operational efficiency and overall business performance. In an effort to strengthen tax administration, enhance transparency, and improve revenue collection, the Uganda Revenue Authority (URA) introduced the Electronic Fiscal Receipting and Invoicing Solution (EFRIS). This system automates the issuance of receipts and invoices, enables real-time tax reporting, and provides digital tools that support efficient record-keeping. This study investigated the impact of Electronic Fiscal Receipting and Invoicing Solutions on the performance of SMEs in Kampala District, Uganda. In this study, EFRIS represented as the independent variable, while the performance of SMEs measured in terms of financial performance, operational efficiency, market competitiveness, and tax compliance as the dependent variable. The chapter focused on tax systems and their influence on SME performance, with particular emphasis on the adoption and utilization of EFRIS. The study also explored the challenges SMEs face in meeting their tax obligations and examined how electronic tax solutions can improve compliance and operational performance. This chapter presents the background to the study, statement of the problem, objectives of the study, research hypotheses, and scope of the study, significance, conceptual framework, and justification for undertaking the research.

1.1 Background to the Study.

The background of the study was broken down in to four themes, that is to say; the historical, theoretical, conceptual and contextual perspective as detailed below.

1.1.1 Historical perspective

Globally, the concept of taxation dates back to ancient civilizations such as Mesopotamia, Egypt, and Rome, where governments collected taxes to fund infrastructure, military, and administrative systems (Julius & Matovu, 2025). However, these systems were manual and prone to inefficiencies such as tax evasion and corruption. (Kartiko & Widjiastuti, 2023) With the advent of technology in the 20th century, governments around the world began to adopt computerized tax systems to enhance compliance and improve revenue collection that led to the Introduction of the Electronic fiscal devices (EFDs) was formed, which are precursors to modern EFRIS systems, to monitor and record sales transactions for tax purposes. (Nguyen et al., 2024) Countries like Italy (1983) and Greece were among the first to implement electronic tax receipt systems to curb revenue leakages. (Rajapaksa et al., 2023) These systems were

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designed to ensure that businesses issue receipts for every transaction, which were then transmitted to tax authorities (Sarah & Audrey, 2024).

On global Expansion of EFRIS, In the 2000s, the introduction of Electronic Fiscal Receipting and Invoicing Solutions (EFRIS) marked a significant leap forward. (Receipting et al., 2023) EFRIS systems integrated advanced technologies such as cloud computing, real-time data transmission, and digital invoicing. (Ahmad & Ahmad, 2024) Countries such as China, South Korea, and Brazil have been leaders in adopting these systems where China, Introduced electronic invoicing ("fapiao") in the early 2000s, mandating businesses to issue electronic receipts verified by tax authorities. (Novitasari et al., 2023) South Korea, Implemented a comprehensive e-tax invoicing system in 2011 to enhance tax compliance among SMEs and large enterprises. (Novitasari et al., 2023), European Union; Many other EU countries adopted e-invoicing systems to standardize tax compliance across member states(T. Paul et al., 2022).

These systems have had a profound impact, including; reducing tax evasion and underreporting, Enhancing transparency in tax administration, Simplifying tax payment processes for businesses, particularly SMEs. According to Vertex (2025), approximately 79% of global tax and finance leaders report that e-invoicing mandates have improved their operational efficiency, while 80% believe these systems enhance data accuracy and reporting quality. (Aslam et al., 2024). According to global e-invoicing market has shown rapid growth from approximately USD 16 billion in 2023 to USD 19.6 billion in 2024 and is projected to reach USD 45.4 billion by 2028, reflecting an annual growth rate of 23.3% (Research and Markets, 2025; Deloitte, 2024). Today, over 80 countries have enforced mandatory government-led e-invoicing frameworks, including Italy (since 2019), Mexico (since 2004), and France (from 2024), primarily to improve transparency, reduce tax fraud, and increase revenue collection (KPMG, 2024; PwC, 2023; OECD, 2023).

In Africa, historically, tax collection has faced significant challenges, including; a large informal sector (often over 50% of GDP in many countries), Poor record-keeping among small businesses, Corruption and inefficiencies in tax administration. (Rutkowska-Tomaszewska et al., 2023) The reliance on manual or semi-automated systems resulted in significant revenue losses for governments. In Africa a round 2000s many countries began to adopt electronic taxation systems, South Africa implemented an advanced VAT system with e-filing options for businesses, Kenya Launched electronic tax registers (ETRs) in 2005, followed by an e-invoicing system in 2021, Zambia and Ghana were noted as the countries that adopted the system (Alex & Moses, 2024).

These systems targeted VAT compliance and aimed to integrate SMEs into the tax system, Tanzania introduced EFDs in 2010, requiring businesses to issue receipts for all transactions. The system faced resistance initially but later become more widely accepted, on the same cue, Rwanda adopted an electronic invoicing system in 2013, which has been credited with significant improvements in tax compliance among SMEs, and Nigeria being among the early

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adopters (Julius & Matovu, 2025). In 2010s, The African Union's (AU) e-government strategy and the African Tax Administration Forum (ATAF) played a crucial role in promoting digital taxation systems across the continent. (Novitasari et al., 2023) These solutions were introduced primarily to; Improve tax compliance, Modernize outdated tax administrations, and Increase government revenue collection (Amos et al., 2024).

In Present day Many African countries have implemented electronic fiscal receipting and invoicing solutions, with varying degrees of success, there has been different Impact of EFRIS on African SMEs and the introduction of EFRIS systems across. (Setiawan et al., 2023) Africa had mixed results; that is to say Positive Impacts of Improved transparency and record-keeping for SMEs, Simplified compliance with tax regulations, increased government revenue. However it has faced some challenges; that is to say High costs of compliance for smaller businesses (e.g., purchasing fiscal devices, training staff) and Resistance from SMEs due to limited awareness and perceived complexity. (Indriasih et al., 2023).

In East Africa, Electronic Fiscal Receipting and Invoicing Tax Systems (EFRIS) and the performance of Small and Medium Enterprises (SMEs) centers on how East African countries in particular Uganda, Kenya, and Tanzania adopted EFRIS to improve tax administration, transparency, and revenue collection in government sources (e.g., from URA, KRA, or TRA) (Ahumuza et al., 2025). Despite previously using manual or semi-automated tax systems, governments transitioned to EFRIS to curb tax evasion, widen the tax base, and enhance compliance through real-time tracking of business transactions (Julius & Matovu, 2025). This digital shift was motivated by the need to modernize tax systems in line with global best practices, improve business accountability, and foster fair competition among enterprises. (Setiawan et al., 2023) For SMEs, EFRIS can improve record-keeping, ease compliance, and promote formalization, yet its implementation has faced challenges like limited digital literacy, high setup costs, system downtimes, and resistance to change. (Carvalho & Mazzon, 2023) Nevertheless, EFRIS remains a strategic tool for boosting tax efficiency and SME performance in the region. In Uganda, 1990 -1991, Uganda's tax administration has evolved significantly and the Government of the republic of Uganda adopted and introduced its first computerized taxation system, the Uganda Revenue Authority (URA) Tax Administration System. (Setiawan et al., 2023) In 2000s, The URA implemented the Electronic Fiscal Devices (EFDs) system, which mandated businesses to use electronic receipting and invoicing systems,

In 2010s, the URA introduced the Electronic Tax Registration System (ETRS) and the Online Tax Payment System (OTPS), further digitalizing tax administration. (Nguyen et al., 2024) In 2018, the URA also introduced the Electronic Invoicing System (EIS), which mandated the use of approved electronic invoicing solutions for all VAT registered businesses (Alex & Moses, 2024). The EIS aimed to enhance tax compliance, improve data collection, and reduce the administrative burden for both businesses and the tax authority. Present day, Uganda continues to enhance its systems by implementing electronic fiscal receipting and invoicing solutions, with a focus on improving tax

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compliance and revenue collection (Irumba et al., 2024). The system was designed to enhance VAT compliance and reduce fraud, Improve transparency in business transactions, Integrate SMEs into the tax system. EFRIS requires businesses to issue electronic receipts and invoices for every transaction, which are automatically transmitted to the URA in real time. (Receipting et al., 2023)

However, the country has faced persistent challenges, including a large informal sector (estimated at over 50% of GDP), Low tax to GDP ratio compared to regional and global averages, Tax evasion and underreporting of income, resistance from some businesses, particularly smaller enterprises, due to the perceived cost and complexity of adopting the new systems , Limited awareness and understanding of the benefits among some business owners particularly among SMEs and Technological and infrastructure challenges, especially in rural and remote areas.(Amos Sanday & Alice Nalweera (2025),and Adrienne Lees (2025).

Many Impact of EFRIS on SMEs in Uganda has been released in particular the Positive Impacts of Improving record-keeping for businesses, making it easier for SMEs to access credit and plan finances, reduced opportunities for tax evasion, leading to a more level playing field, Enhanced government revenue collection, which can be reinvested in infrastructure and services. (Nguyen et al., 2024)With due Challenges of resistance from SMEs due to limited awareness and technical capacity, High costs associated with implementing the system (e.g., purchasing compliant devices, internet access) and Limited internet penetration and power supply in rural areas, hindering adoption. (Rajapaksa et al., 2023)

On comparative analysis, Uganda's EFRIS system is modeled after similar systems implemented in Kenya, Rwanda, and Tanzania. However, Uganda also has faced unique challenges due to its higher reliance on the informal sector and limited digital literacy among SMEs. The adoption of EFRIS systems represents a global trend toward modernizing tax administration to improve compliance and revenue collection. (Florence & Julius, 2023).

Despite these systems have had significant positive impacts worldwide, their success depends on addressing challenges related to costs, infrastructure, and awareness (Alex & Moses, 2024). In Uganda, the introduction of EFRIS is a critical step in integrating SMEs into the formal economy, but its effectiveness will depend on continuous support, training, and infrastructure development. (Indriasih et al., 2023), in Kampala District particularly be confined to the five administrative divisions of Kampala i.e. Central, Kawempe, Makindye, Nakawa, and Lubaga, ensuring representation of both long-established and newly registered firms (F. Christopher et al., 2022).

1.1.2 Theoretical perspective

This study was underpinned by Technology Acceptance model (TAM), developed by Fred Davis in 1989. This theory collectively provided an understanding of how the adoption of electronic fiscal systems like EFRIS influences the performance of SMEs in Kampala District, Uganda.

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The Technology Acceptance model (TAM) is a foundational theory in the field of information systems that explains how users come to accept and use a new technology. TAM is one of the most influential and widely applied theory for predicting user behavior toward information technology (IT). It was specifically designed to model user acceptance of information systems, making it particularly relevant when studying tools like EFRIS in organizational settings such as SMEs in Kampala district, Uganda. TAM was rooted in the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), which suggests that individual behavior is driven by behavioral intentions, where intention is a function of an individual's attitude toward the behavior and subjective norms.

TAM simplifies the TRA framework and focuses on two primary beliefs that determine a user's acceptance of technology that is to say , Perceived Usefulness (PU), defined by Davis (1989) as, "The degree to which a person believes that using a particular system would enhance his or her job performance. "In the context of EFRIS, this could mean that SME owners believe the system help to improve their tax compliance, accounting efficiency, and access to credit by providing accurate transaction records. Perceived Ease of Use (PEOU), defined as, "The degree to which a person believes that using a particular system would be free of effort." (Setiawan et al., 2023) If SME users find EFRIS simple to learn, easy to integrate into daily business operations, and minimally disruptive, their perception of ease of use is positive.

Basing on the extended relationships in TAM posits that Perceived Ease of Use (PEOU) influences Perceived Usefulness (PU) because if a system is easier to use, it is more likely to be perceived as useful, and also both PU and PEOU influence attitude toward using the degree of positive or negative feelings about using the system. Attitude toward Use, affects the Behavioral Intention to Use the system. (Carvalho & Mazzon, 2023) Behavioral Intention directly influences the Actual System use. This can be illustrated as, Perceived Ease of use leads to perceived usefulness and attitude towards use proceeds also to behavior Intention and also leading to actual use.

TAM is particularly relevant in studies involving digital transformation, such as implementing tax related digital solutions like EFRIS, because it provides a predictive model. (Is & The, n.d.)TAM also helps to predict how likely users are to adopt a new technology. (Avirneni et al., 2023) It allows researchers and policymakers to identify barriers to adoption in particular, if users don't find the system useful or easy to use, a framework for intervention, enables to understand user perceptions, enabling training, simplification of technology interfaces, and communication strategies to increase adoption.(Wang, 2023).

In the context of EFRIS in Kampala district, TAM helps to explain whether SME owners and managers find the system useful in particular improving tax compliance, reduce tax evasion, enhance the efficiency of tax administration and record-keeping, and easy to use in particular, user-friendly interfaces, and minimal training required .(Wang, 2023) If SMEs perceive EFRIS positively in these two dimensions, they are more likely to adopt and integrate it into their business operations, thereby potentially improving performance. (Ştahovschi & Bucuci, 2023),

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However, TAM is not without limitations, One of the major criticisms is its narrow scope, it primarily focuses on internal cognitive processes and excludes external, organizational, and contextual variables such as social influence, infrastructure, or regulatory enforcement (Benbasat & Barki, 2007, Bagozzi, 2007). For instance, in environments like Uganda where tax technologies such as the Electronic Fiscal Receipting and Invoicing System (EFRIS) are not optional but mandatory, external factors like government directives, digital literacy, and support mechanisms may also significantly influence system use (Mugerwa & Obwona, 2023).

Despite these weaknesses, TAM remains highly relevant to this study. Its core variables system awareness linked to perceived usefulness, system ease of use, and system utilization align directly with the research objectives. Recent findings by Namulwana (2024) confirm that perceived usefulness and ease of use significantly affect digital tax system usage among SMEs in Kampala. Thus, while TAM provides a foundational framework for examining EFRIS adoption, which may be extended by incorporating contextual variables to better reflect the Ugandan SME environment. TAM helps explain why some SMEs embrace EFRIS while others resist it, and how this adoption influences their performance in terms of compliance, operational efficiency, and growth. The theory provides a framework for understanding how independent variables like perceived usefulness and ease of use influence the dependent variable, which is SME performance. It also sheds light on moderating factors such as training, cost, and technical support, which may influence adoption behavior in Kampala's business environment. (Joseph Mugema (2023)

1.1.3 Conceptual perspective.

This section presents the key concepts that guided the study and explains how each variable was operationalized. The purpose of the conceptual perspective was to clarify the major constructs underpinning the investigation into how the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) influences the performance of SMEs in Kampala District, Uganda(Ansebo & Gaywala, 2022).

The primary concept in this study was the Electronic Fiscal Receipting and Invoicing Solution (EFRIS). The Uganda Revenue Authority (URA, 2020; updated 2023) defines EFRIS as a digital tax management platform designed to enhance efficiency and transparency in tax administration by automatically capturing, validating, and transmitting transactional data in real time. Within this study, EFRIS is conceptualized as an independent variable and is measured through indicators such as frequency of system utilization, integration into business operations, ease of generating invoices, and perceived benefits in tax management procedures(T. Christopher, 2022).

A second key variable was tax compliance, which the Organization for Economic Co-operation and Development (OECD, 2021) defines as the extent to which taxpayers meet statutory requirements, including accurate reporting, timely filing, and full payment of taxes(Ramadhan, Alex, Kazaara, et al., 2023). In Uganda, the adoption of digital tools such as EFRIS has been promoted to reduce non-compliance and strengthen voluntary compliance among SMEs

(URA, 2022). Tax compliance in this study was assessed through indicators such as timeliness of filing, accuracy of tax submissions, reduction in compliance costs, and adherence to EFRIS invoicing requirements.

The concept of SME performance was central to the dependent variable. Recent studies by Nakatudde and Kaggwa (2022) indicate that SME performance encompasses financial and non-financial dimensions, including profitability, operational efficiency, customer growth, competitiveness, and overall administrative effectiveness (Ahumuza et al., 2025). In this study, SME performance was measured using indicators such as profit margins, operational efficiency, productivity levels, customer attraction, and administrative cost reductions associated with EFRIS adoption.

The study also relies on the construct of perceived ease of use, derived from the Technology Acceptance Model (TAM). As updated in contemporary digital adoption research by Venkatesh et al. (2021), perceived ease of use refers to the degree to which individuals believe that a technological system will be free of effort. In this study, perceived ease of use was measured through users' assessments of learnability, system navigation, clarity of instructions, and the simplicity of issuing fiscal receipts and invoices via EFRIS.

Another related construct is system accessibility, defined by Kim and Park (2021) as the extent to which users are able to access and utilize digital platforms conveniently across devices and under varying technological conditions. For purposes of this study, system accessibility was measured using indicators such as internet stability, system availability, device compatibility, and access to technical support services (T. Christopher et al., 2024). High system accessibility is expected to enhance user confidence and promote continuous utilization of EFRIS. (Avirneni et al., 2023)

Finally, the study examines awareness and adoption, concepts grounded in the Diffusion of Innovation Theory as applied in recent digital taxation studies by Ahimbisibwe and Nangoli (2023). Awareness refers to the degree to which SMEs understand the purpose, benefits, and requirements of EFRIS, while adoption refers to the actual decision and commitment to use the system consistently. These variables are measured through indicators such as knowledge of EFRIS features, understanding of legal obligations, exposure to sensitization initiatives, perceived affordability of electronic fiscal devices, and actual usage behavior. (Receipting et al., 2023)

The conceptualization guiding this research was anchored in the Technology Acceptance Model (TAM), which posits that technology adoption is influenced by perceived usefulness and perceived ease of use (Venkatesh et al., 2021). Accordingly, when SMEs consider EFRIS beneficial to their operations and easy to use, they are more likely to incorporate it into daily business activities. Conversely, perceptions of complexity, inaccessibility, or high implementation costs may hinder adoption. Therefore, the conceptual framework positions EFRIS utilization, perceived ease of use, system accessibility, awareness, and adoption as the major determinants of SME performance in Kampala District.

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1.1.4 Contextual perspective.

The contextual perspective situates this study within the specific economic, regulatory, and technological environment of Kampala District, where the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) is being implemented among Small and Medium Enterprises (SMEs). Kampala is Uganda's principal commercial center, hosting the largest concentration of SMEs in sectors such as retail, wholesale, hospitality, manufacturing, and professional services (Alex et al., 2024). These enterprises differ significantly in operational capacity, digital readiness, and formalization levels (Nancy & Prudence, 2024). While some SMEs operate with established accounting systems and digital infrastructure, many others function informally with limited bookkeeping skills and minimal use of technology. This diversity strongly influences how SMEs perceive, adopt, and utilize digital tax systems such as EFRIS (URA, 2020; Nakatudde & Kagawa, 2022).

Technologically, Kampala enjoys better internet connectivity and electricity supply compared to other regions of Uganda, which supports the rollout of real-time tax reporting systems like EFRIS. However, infrastructural challenges persist. Some parts of the division still experience unstable internet connections, inconsistent power supply, and limited access to compatible hardware such as computers, smartphones, and Electronic Fiscal Devices (EFDs). These challenges affect system accessibility, a critical factor that determines the ease with which SMEs interact with EFRIS and sustain its use in daily operations (Kim & Park, 2021).

In addition, the level of digital literacy among SME owners and employees varies widely. While some enterprises employ trained accountants or individuals familiar with IT systems, many small and micro firms lack basic digital skills. This often reduces the perceived ease of use of EFRIS and slows its adoption. According to the Technology Acceptance Model (TAM), users are more likely to adopt a system if they perceive it as easy to use and beneficial (Venkatesh et al., 2021). Thus, variations in digital literacy and the quality of training provided to SMEs directly influence awareness, adoption, and continued usage of EFRIS.

According to a 2023 report by the Private Sector Foundation Uganda (PSFU) and findings by Kansiime et al. (2024), the majority of SMEs in Kampala face difficulties in complying with EFRIS due to; Limited ICT infrastructure, Insufficient training or awareness, Fear of taxation due to poor recordkeeping and Increased cost of compliance.

According to a 2022 report by the Uganda National Chamber of Commerce and Industry (UNCCI), over 60% of SMEs in Kampala expressed concern that EFRIS had increased their operational burden without a corresponding improvement in business performance.

The EPRC Business Climate Index (2024) reported that 65.5% of SMEs identified technical complexity, lack of user support, and inadequate training as major hurdles to effectively using EFRIS. Many SMEs lack the financial resources

and human capacity to install and maintain digital devices, manage software updates, or access stable internet services. Okurut (2025) highlights that the learning curve associated with system features discourages use, particularly for micro-enterprises and informal businesses.

On the regulatory front, Uganda has established a supportive but evolving framework for EFRIS implementation. The Uganda Revenue Authority (URA) introduced EFRIS to enhance tax transparency, reduce revenue leakages, and promote real-time reporting of business transactions (URA, 2020; URA, 2022). Several national policies including the URA EFRIS Implementation Guidelines, EFD certification requirements, and the government's Digital Transformation Roadmap provided a formal basis for electronic tax administration. International guidelines, such as the OECD (2021) recommendations on digital tax systems, have also shaped Uganda's approach to modernizing tax administration. Development partners, including the World Bank and regional development programs, further support digital taxation initiatives through capacity building and infrastructure development (Alex & Kazaara, 2023).

Policy measures used to enhance EFRIS adoption include taxpayer training workshops, sensitization campaigns, phased enforcement, and simplified compliance procedures. Despite these efforts, practical challenges such as the cost of acquiring EFDs, limited post-installation technical support, and low levels of awareness constrain adoption among SMEs (Ahimbisibwe & Nangoli, 2023; Mugisha, 2021). These challenges highlight a gap between policy intentions and actual implementation on the ground.

However, the contextual environment of Kampala District reflects a blend of opportunities and obstacles. While infrastructural advantages, regulatory support, and digitalization policies create a conducive setting for EFRIS adoption, persistent issues such as cost barriers, inconsistent system accessibility, limited digital skills, and uneven awareness continue to hinder widespread uptake. These contextual factors significantly shape the core study variables i.e.(Julius & Kazaara, 2025). EFRIS utilization, ease of use, accessibility, awareness and adoption, tax compliance, and SME performance. Understanding the Kampala context is therefore crucial for interpreting the study's findings and for recommending practical interventions for URA, policymakers, and SME development stakeholders.

1.2 Statement of the Problem

The Uganda Revenue Authority (URA) introduced the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) to improve tax compliance, reduce revenue leakages, enhance transparency, and support SME performance through efficient record keeping and automated invoicing. Ideally, SMEs in Kampala District are expected to consistently use EFRIS to issue electronic receipts, file accurate tax returns, reduce compliance costs, improve operational efficiency, and enhance profitability (Alex et al., 2024). The system was designed to simplify tax reporting and eliminate the administrative burden associated with manual documentation (URA, 2022).

Despite these expectations, the actual situation on the ground reflects a substantial gap between policy intentions and practical implementation. Recent URA reports indicate that although over 600,000 taxpayers have been registered on EFRIS nationally, a large proportion do not use EFRIS consistently for daily transactions (URA, 2023). Studies indicate that fewer than half of registered SMEs actively generate electronic receipts, mainly due to limited awareness, low digital literacy, system complexity, unreliable internet connectivity, and the high cost of Electronic Fiscal Devices (Ahimbisibwe & Nangoli, 2023; Mugisha, 2021). Findings from the current study further reveal uncertainty and disagreement regarding EFRIS awareness, ease of use, and routine utilization, confirming weak adoption in Kampala District.

To address these challenges, URA has conducted sensitization campaigns, issued implementation guidelines, and provided technical support. Despite these efforts, significant barriers persist, resulting in continued reliance on manual systems and partial compliance. This limited adoption exposes SMEs to penalties, inaccurate reporting, high administrative costs, and operational inefficiencies, while undermining their financial performance and competitiveness (Ramadhan, Alex, Ariyo, et al., 2023). At the national level, low EFRIS utilization weakens revenue mobilization and the effectiveness of digital tax reforms. Given that SMEs account for over 70% of employment and about 20% of Uganda's GDP, understanding the factors influencing EFRIS adoption is critical (Nakatudde & Kaggwa, 2022). Without empirical evidence on how ease of use, accessibility, awareness, and perceived benefits affect adoption and performance, policy interventions may fail to address SME realities. If unresolved, low tax compliance, poor SME performance, and revenue leakages are likely to persist (Frank et al., 2023). Given the above, this study seeks to examine the relationship between EFRIS utilization and SME performance in Kampala District by assessing adoption levels, identifying barriers to effective use, and analyzing how ease of use, accessibility, and awareness influence operational efficiency and financial performance.

1.3 Objectives of the study

1.3.1 Purpose of the study

The main objective was to investigate the effect of EFRIS tax system on the performance of Small and Medium Enterprises (SMEs) in Kampala district, Uganda, with a view to identifying how EFRIS adoption influences financial outcomes, operational efficiency, market competitiveness, and compliance costs.

1.3.2 Specific Objectives.

- i) To determine the relationship between EFRIS system utilization and the financial performance of SMEs in Kampala district.
- ii) To examine the effect of perceived ease of use and system accessibility on SMEs' operational efficiency.

- iii) To assess the level of awareness and adoption of the EFRIS tax system among small and medium enterprise (SME) in Kampala District.

1.4 Research Hypotheses.

H0₁ There is no significant relationship between system utilization of EFRIS and the performance of SMEs in Kampala District.

H0₂ There is no significant relationship between system ease of use of EFRIS and the performance of SMEs in Kampala District.

H0₃ There is no significant relationship between system awareness of EFRIS and the performance of SMEs in Kampala District.

1.5 Scope of the Study

This included the geographical, time and the content scope.

1.5.1 Geographical scope

This study was conducted in Kampala District, the capital city and primary commercial center of Uganda. Kampala was selected because it hosts the highest concentration of Small and Medium Enterprises (SMEs) across sectors such as retail, wholesale, hospitality, manufacturing, transport, and professional services. According to the Uganda Bureau of Statistics (UBOS, 2023), more than 40% of all formal SMEs in Uganda operate within Kampala, making it the most appropriate location for examining the adoption and impact of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS).

Kampala is also the pilot and focal point of EFRIS implementation by the Uganda Revenue Authority (URA). The city's businesses were among the first groups mandated to adopt EFRIS under URA's phased rollout strategy introduced in 2020 and reinforced in 2022. This makes Kampala an ideal setting to evaluate awareness, ease of use, system accessibility, and actual adoption of the EFRIS tax system. (URA Official Publication of 2020 and 2022).

Geographically, the study covered SMEs located in the five administrative divisions of Kampala i.e. Central Division, Kawempe, Makindye, Nakawa, and Rubaga. These areas were chosen because they represent diverse business environments with different levels of digital readiness, infrastructure availability, and sectoral specialization. The focus on these divisions enabled the study to capture variations in EFRIS utilization, tax compliance behavior, and operational performance among SMEs operating in both highly urbanized commercial centers and semi-urban neighborhoods.

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1.5.2 Time scope

The time scope of this study covers the period 2020 to 2025, which corresponds with the introduction, rollout, enforcement, and growing adoption of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) by the Uganda Revenue Authority (URA). EFRIS was formally launched in January 2020, and mandatory implementation for selected sectors included wholesale, retail, hotels, and manufacturers which was intensified in 2021 and 2022. This timeframe allowed the researcher to capture how SMEs in Kampala have responded to the system from its early introduction to its operational stabilization.

The study specifically focuses on SME performance, tax compliance behavior, and EFRIS utilization within the past four years, a period during which SMEs experienced significant transitions in tax administration procedures. These years also coincide with major national digital transformation efforts and URA's continuous sensitization and enforcement campaigns aimed at increasing EFRIS adoption. (Setiawan et al., 2023)

Data collection for this study was conducted in 2024, enabling the assessment of current experiences, challenges, and perceived benefits among SMEs after they had interacted with the system for a substantial period. The selected timeframe ensures that findings reflect both the initial adoption challenges and the current operational realities of using EFRIS in daily business activities.

1.5.3 Content scope.

The content scope defines the specific themes, variables, and conceptual boundaries that this research focused on examining the relationship between the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) and the performance of Small and Medium Enterprises (SMEs) in Kampala District. The study was centered on three major area i.e. EFRIS utilization, perceived ease of use and system accessibility, and awareness and adoption, and how these elements influence key dimensions of SME performance. (Kucia-Guściora, 2023)

Firstly, the study examined EFRIS system utilization, focusing on how frequently and consistently SMEs use the system in their day-to-day operations. This included aspects such as invoice generation, data transmission, integration with business processes, and the overall role of EFRIS in enhancing transparency and financial reporting. (Indriasih et al., 2023) The study explored how this utilization relates to financial performance, including profit growth, cost management, and revenue tracking.

Secondly, the study covered perceived ease of use and system accessibility, guided by the Technology Acceptance Model (TAM). It analyzed how user-friendliness, system simplicity, training availability, internet reliability, and device compatibility shape operational efficiency among SMEs. This content area investigated whether ease of

learning and accessibility of the system contribute to improved service delivery, customer satisfaction, and overall productivity.

Thirdly, the study addresses awareness and adoption of EFRIS, assessing the extent to which SMEs understand the system's purpose, benefits, and legal obligations. This included evaluating their exposure to sensitization campaigns, perceptions of cost and affordability, and readiness to integrate EFRIS into business operations. (Wang, 2023) It also explored how awareness levels influence actual adoption behavior and compliance outcomes.

Finally, the content scope included SME performance, the dependent variable of the study. Performance was examined from both financial and operational perspectives, including profitability, efficiency, customer growth, and reduction in compliance burdens.

1.6 Significance of the study.

The significance of this study lied in its potential to inform policy, practice, and academic understanding regarding the adoption and impact of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) among Small and Medium Enterprises (SMEs) in Kampala District. As Uganda continues to digitalize its tax administration processes, SMEs are increasingly required to comply with electronic invoicing and real-time tax reporting. However, limited awareness, varied levels of digital readiness, and perceived system challenges have created gaps in adoption and mixed outcomes for business performance. (Ouabi et al., 2022) Therefore, this study provides valuable insights for key stakeholders as outlined below.

To policymakers and the Uganda Revenue Authority (URA), the study provides evidence-based findings on the level of awareness, ease of use, accessibility, and challenges associated with EFRIS adoption among SMEs. (Ouabi et al., 2022) These insights can support URA in refining its implementation strategies, enhancing sensitization programs, improving system support, and tailoring compliance policies to the needs and capacities of SMEs. The findings will also guide the government in strengthening digital tax policies and addressing barriers that hinder voluntary compliance and formalization.

To SME owners and managers, the study offers practical knowledge on how EFRIS can improve operational efficiency, financial management, and tax compliance. By understanding the system's benefits, ease of use, and factors that influence performance, SMEs can make informed decisions on integrating EFRIS into their day-to-day operations. The results also highlight common challenges and best practices that can help businesses leverage EFRIS to enhance profitability, service delivery, and competitiveness.

To business support organizations, financial institutions, and technology providers, the study presents valuable insights into the technological and financial constraints faced by SMEs. These organizations can use the findings to

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design targeted training programs, provide technical assistance, and develop affordable technological solutions that meet the needs of SMEs adopting EFRIS.

To academic researchers and scholars, the study contributes to the body of knowledge by bridging gaps in literature concerning digital tax systems, technology adoption, and SME performance in the Ugandan context. It applies contemporary theoretical frameworks including the Technology Acceptance Model (TAM) and Diffusion of Innovation Theory (DOI), providing a foundation for future research on digital taxation, compliance behavior, and technology-driven business transformation. (Ahmad & Ahmad, 2024) Lastly, the community have benefited indirectly through increased tax compliance and revenue generation, which could be used to fund public services and infrastructure.

1.7 Justification of the Study.

The justification of this study arises from Uganda's increasing emphasis on digital tax administration and the mounting challenges that Small and Medium Enterprises (SMEs) face in adopting and effectively using the Electronic Fiscal Receipting and Invoicing Solution (EFRIS). Since EFRIS was introduced by the Uganda Revenue Authority (URA) in January 2020 as part of the Digital Tax Transformation Agenda, it has become a mandatory compliance tool for several categories of taxpayers (URA, 2020; URA, 2023). Although the system is expected to enhance accuracy in tax reporting, reduce compliance costs, and improve transparency, many SMEs in Kampala continue to struggle with low adoption, limited awareness, usability challenges, infrastructural constraints, and misconceptions about the system (Ahimbisibwe & Nangoli, 2023; Nakatudde & Kagwa, 2022).

The study is justified first by the persistent knowledge gap regarding the actual influence of EFRIS on SME performance within Uganda's urban business environment. While preliminary assessments and URA compliance reports highlight inconsistent levels of awareness and significant implementation challenges (URA, 2022; World Bank, 2021), empirical research specifically linking EFRIS utilization to financial performance, operational efficiency, and compliance outcomes remains limited. Existing studies acknowledge that SMEs often face barriers related to system complexity, affordability of Electronic Fiscal Devices (EFDs), and inadequate digital literacy (Mugisha, 2021; Kato & Mutoro, 2022). Therefore, this research provides critical empirical evidence on how EFRIS utilization, perceived ease of use, system accessibility, and awareness interact to shape SME performance in Kampala District.

Secondly, the study is justified by its strong policy relevance. As URA intensifies enforcement of digital tax systems and expands taxpayer coverage, policymakers require evidence-based insights to refine system design, enhance training programs, and improve sensitization strategies. The findings of this study provide feedback on the real-world challenges SMEs face during EFRIS adoption, so URA, the Ministry of Finance, and the Ministry of ICT are required

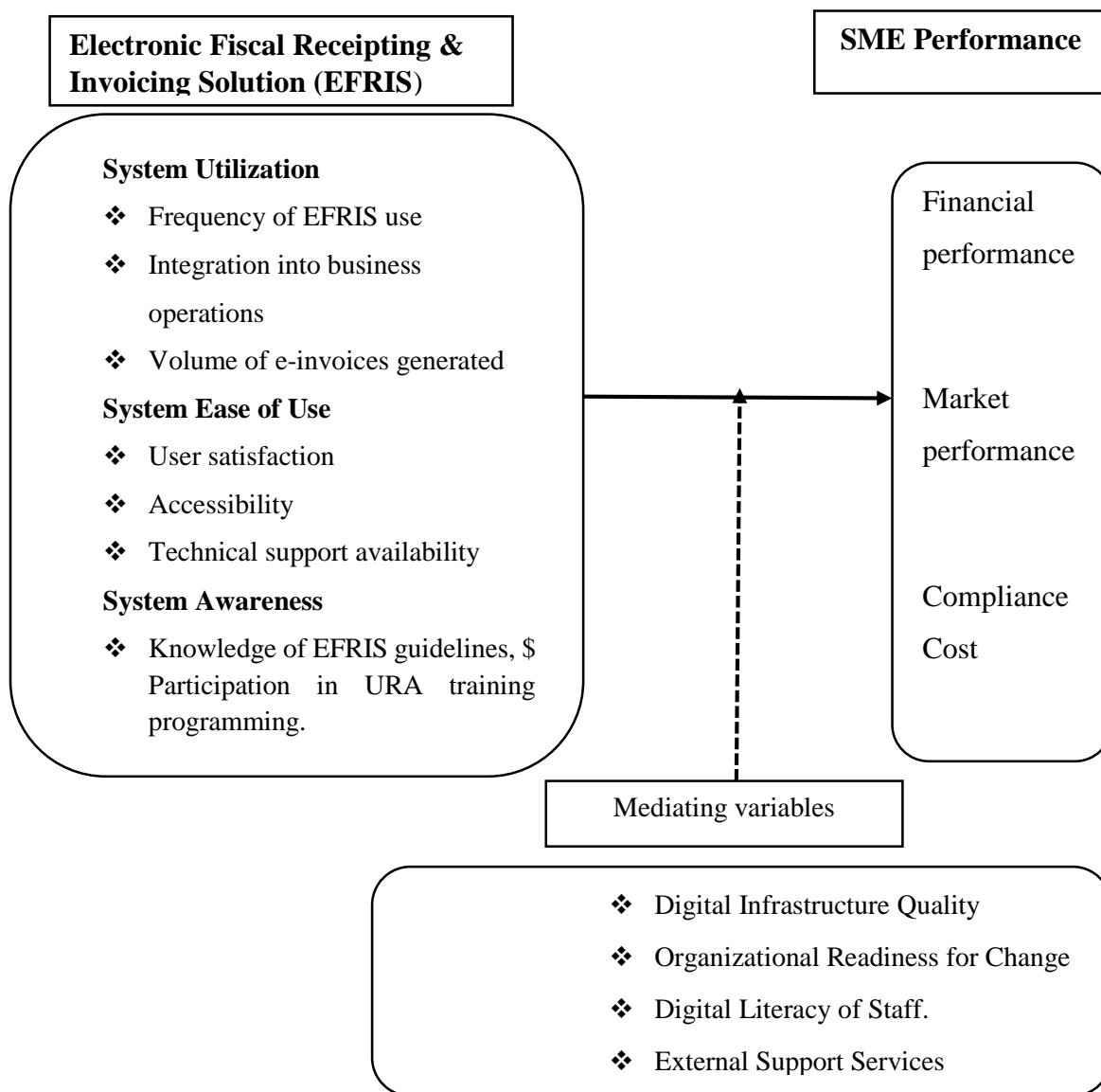
to design more effective support interventions that promote voluntary compliance and reduce administrative burdens (URA, 2023; OECD, 2021).

The study is practically important for SMEs themselves, which constitute over 90% of Uganda's private sector and contribute significantly to employment and economic growth (Uganda Investment Authority, 2022). Many SMEs lack adequate information, digital skills, or financial resources to fully integrate EFRIS into their daily operations. By examining how EFRIS affects financial performance and operational efficiency, this study provides actionable insights that can help SMEs use digital fiscal tools to improve productivity, accuracy, tax compliance, and competitiveness.

Finally, the study is academically justified as it contributes to contemporary literature by applying the Technology Acceptance Model (TAM) to a modern tax innovation in a developing-country setting. TAM posits that technology adoption is shaped by perceived usefulness and perceived ease of use (Venkatesh et al., 2021). By testing these constructs in relation to EFRIS adoption, the study expands theoretical understanding of digital taxation, compliance behaviour, and SME digital transformation fields where limited empirical work currently exists in Sub-Saharan Africa.

Figure1 1: Conceptual frame framework.

The Illustration shows the relationship between the EFRIS tax system and the performance of small and medium enterprises (SMEs) in Kampala, Uganda.



Source: Adapted from Fishbein and Ajzen (1975), and modified by researcher, 2025

The conceptual framework illustrates how the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) influences the performance of Small and Medium Enterprises (SMEs) in Kampala District. In this framework, EFRIS acts as the

independent variable, measured through three main dimensions: system utilization, system ease of use, and system awareness. These dimensions interact in ways that shape the dependent variable, SME performance, which is assessed through financial performance, market performance, and compliance costs.

System utilization captures the extent to which SMEs practically engage with EFRIS in their daily operations, including the frequency of use, integration of the system into business processes, and the volume of e-invoices generated. High levels of system utilization are expected to lead to improved accuracy in business transactions, better financial record-keeping, and ultimately enhanced financial performance. When SMEs consistently use EFRIS, they are more likely to benefit from streamlined operations and reduced administrative inefficiencies, which positively influence profitability and market competitiveness.

System ease of use reflects how user-friendly SME operators perceive EFRIS to be. This dimension includes user satisfaction, accessibility of the system across devices, and availability of technical support. According to the Technology Acceptance Model (TAM), ease of use directly influences a user's willingness to adopt and continuously use a technological system. Therefore, if SME operators find EFRIS easy to navigate, accessible, and sufficiently supported, they are more likely to integrate it fully into their operations. High ease of use enhances system utilization, improves operational efficiency, and reduces errors and delays in issuing electronic invoices ultimately strengthening both financial and market performance.

System awareness measures how knowledgeable SMEs are about EFRIS guidelines and whether they have participated in URA-led training programs. Awareness plays a foundational role because SMEs that understand the benefits, legal requirements, and operational procedures of EFRIS are more likely to adopt and use the system effectively. High awareness improves both system utilization and ease of use, as informed users can navigate the system with confidence. In this sense, awareness functions as an antecedent that influences the other EFRIS dimensions and determines the overall effectiveness of system adoption.

Together, these three components of EFRIS, utilization, ease of use, and awareness, exert a combined influence on SME performance. Effective utilization improves financial performance, ease of use enhances market performance through improved customer service and transaction efficiency, and awareness reduces compliance costs by helping SMEs meet tax obligations more accurately and efficiently. Therefore, the conceptual framework demonstrates that the extent to which SMEs adopt and engage with EFRIS significantly shapes their operational outcomes and business performance. The framework visually and theoretically explains the pathway through which digital tax systems impact SME performance, guided by principles of the Technology Acceptance Model.

1.8. Definition of key operational terms

1.8.1. Electronic Fiscal Receipting and Invoicing Solution (EFRIS)

EFRIS is the central independent variable in this study. According to the Uganda Revenue Authority (URA, 2020; updated 2023), EFRIS is an integrated digital tax administration system designed to automate the generation of fiscal receipts and invoices, capture real-time sales data, and transmit business transaction information to URA for monitoring and compliance purposes. Scholars such as Ahimbisibwe & Nangoli (2023) describe EFRIS as a digital compliance tool intended to improve transparency, reduce revenue leakages, and simplify the tax reporting process for businesses.

In this study, EFRIS refers to the extent to which SMEs in Kampala District adopt, use, and integrate the URA digital invoicing platform into their day-to-day operations. The system is measured using three major constructs:

System Utilization: Refers to the degree to which SMEs actively use the EFRIS platform in their business operations. As noted by Mugisha (2021), frequent use of electronic tax systems enhances reporting accuracy and operational efficiency. In the present study, system utilization is defined as how consistently SMEs generate e-receipts and e-invoices, the extent to which EFRIS is integrated into their point-of-sale processes, and the volume of transactions recorded through the system. High utilization reflects meaningful integration, while low utilization signals resistance, difficulty, or limited awareness.

System Ease of Use: The construct of perceived ease of use originates from the Technology Acceptance Model (TAM), where it is defined as the extent to which a user believes that operating a technological system requires minimal effort (Venkatesh et al., 2021). Recent research, such as Kim and Park (2021), demonstrates that systems perceived as easy to use attract higher adoption and consistent utilization. In this study, perceived ease of use refers to SMEs' perceptions regarding how simple it is to learn, navigate, and operate the EFRIS platform. It includes the ease of generating invoices, correcting errors, and interacting with the system interface. The easier the system is perceived to be, the higher the likelihood of acceptance and daily use.

System Awareness and Adoption, grounded in Rogers' Diffusion of Innovation Theory and supported by recent applications in digital tax studies (Ahimbisibwe & Nangoli, 2023). Awareness refers to the degree to which SMEs understand the purpose, benefits, and legal obligations associated with EFRIS, while adoption refers to their decision to accept, implement, and continuously use the system in their operations. In this study, awareness and adoption are measured through knowledge of EFRIS procedures, engagement in URA training programs, understanding of compliance requirements, and actual usage behavior. High awareness is expected to positively influence adoption, while low awareness contributes to resistance or partial compliance.

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System accessibility, which refers to the ability of SMEs to conveniently access the EFRIS platform across various technological conditions. Ssemanda and Akello (2022) define accessibility as the extent to which digital tools are available, operational, and compatible with user environments. In this study, system accessibility was explained in terms of internet connectivity, device compatibility, system responsiveness, and the availability of technical support. Accessibility is crucial because even a user-friendly system loses value if it cannot be accessed reliably due to connectivity gaps, device limitations, or system downtimes.

These constructs was grounded in the Technology Acceptance Model (TAM), which asserts that perceived usefulness and perceived ease of use determine user acceptance of digital systems (Venkatesh et al., 2021).and Rogers' Diffusion of Innovation Theory which explains a bout awareness.

SME Performance

SME performance is the primary dependent variable. According to Nakatudde & Kagwa (2022), SME performance refers to the financial, operational, and market outcomes that reflect business success. According to (Kigozi & Nannono, 2023) emphasizes that performance includes profitability, operational efficiency, customer growth, and competitiveness in the marketplace. In this study, SME performance is measured using three key dimensions relevant to digital tax compliance: Financial Performance (profit growth, revenue stability, and cost reduction.) Market Performance (customer attraction, competitiveness, and sales improvements.) and Compliance Cost (cost of meeting tax obligations under EFRIS, including time, administrative and financial resources.)

Tax compliance: is another operational term relevant to this study. The OECD (2021) defines tax compliance as the degree to which taxpayers fulfill their obligations in terms of accurate reporting, timely filing, and payment of taxes. In the context of Uganda, URA (2022) emphasizes that EFRIS is expected to improve compliance by ensuring real-time reporting and reducing discrepancies in declarations. For this study, tax compliance reflects how EFRIS influences the accuracy, timeliness, and consistency of SME tax reporting, as well as reductions in penalties for non-compliance incidents.

Compliance cost,

The study further considers compliance cost, which refers to the financial, administrative, and time resources required to meet tax obligations. The World Bank (2021) notes that compliance costs often affect SME growth, especially when new systems demand additional devices, training, or internet resources. Compliance cost in this study includes the cost of acquiring Electronic Fiscal Devices (EFDs), internet charges, time spent on reporting, and administrative workload. Changes in compliance cost help explain how EFRIS affects SME financial performance.

Operational efficiency

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Finally, the concept of operational efficiency is relevant and refers to the ability of businesses to conduct their operations smoothly, with fewer errors, lower costs, and improved service delivery. Kigozi and Nannono (2023) state that digital systems improve efficiency when they simplify administrative processes. In this study, operational efficiency is measured through reductions in paperwork, improved transaction speed, accuracy in invoicing, and enhanced customer service resulting from EFRIS use.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews relevant literature related to Electronic Fiscal Receipting and Invoicing Systems (EFRIS) and their impact on Small and Medium Enterprises (SMEs). It covers theoretical foundations, empirical studies, and identifies research gaps. The review focuses on variables such as system utilization, system ease of use, system awareness, and SME performance, drawing on both global and Ugandan contexts.

2.1 Theoretical review

This study was anchored on two key theories that helped to explain how SMEs in Kampala adopt, utilize, and respond to the Electronic Fiscal Receipting and Invoicing Solution (EFRIS): the Technology Acceptance Model (TAM), the Diffusion of Innovation Theory (DOI). These theories offer a conceptual foundation for understanding the behaviors, decisions, and outcomes related to digital tax system adoption, and they guide the relationships between the independent variables (system utilization, perceived ease of use, system accessibility, awareness and adoption) and the dependent variable (SME performance).

The Technology Acceptance Model (TAM), originally developed by Davis (1989). TAM is an extension of the Theory of Reasoned Action (TRA), originally developed by Fishbein and Ajzen (1975), however it is widely validated in modern technology adoption studies (Venkatesh et al., 2021), explains user acceptance of new technologies based on two primary beliefs: perceived usefulness and perceived ease of use.

According to TAM, users are more likely to adopt and effectively use a technological system when they believe it will improve their performance and when they perceive the system as easy to learn and operate. In the context of EFRIS, TAM provides a strong foundation for understanding why many SMEs in Kampala have struggled with adoption. If SME owners perceive EFRIS as complicated or time-consuming, their intention to use the system decreases. Conversely, if they perceive that EFRIS improves accuracy in tax reporting, enhances operational efficiency, or reduces compliance errors, adoption is more likely. (Florence & Julius, 2023)

TAM is therefore relevant to the study because it clarifies how the variables perceived ease of use, system accessibility, and system utilization influence behavioral intention and actual use of EFRIS. TAM is useful for policymakers and tax authorities like the Uganda Revenue Authority (URA) in understanding how to encourage technology acceptance among SMEs, who often face challenges such as digital illiteracy, fear of government surveillance, or lack of infrastructure.

TAM provides a logical framework for analyzing how the perceptions and experiences of SME owners and staff with EFRIS influence their behavior and performance outcomes. By focusing on the behavioral aspects of technology adoption, TAM links the independent variables which is EFRIS use to the dependent variables which is an aspects of SME performance. For example, if EFRIS is perceived as useful and easy to use, it is more likely to be fully utilized which is independent variable, which can result in improved operational efficiency and reduced compliance costs which is dependent variables. (Florence & Julius, 2023)

Despite its widespread application, the Technology Acceptance Model (TAM) has faced several criticisms and limitations, particularly in complex, and real world contexts such as the adoption of EFRIS by SMEs in developing countries like Uganda. One key criticism is that TAM is overly simplistic, focusing primarily on perceived usefulness and perceived ease of use, while neglecting important external variables such as social, cultural, organizational, and infrastructural factors that significantly influence technology adoption in small businesses. For instance, in Kampala, SMEs may face barriers such as low digital literacy, limited internet access, fear of surveillance, and lack of government support factors that TAM does not sufficiently capture. (Rajapaksa et al., 2023)

Alarith Uhde & Marc Hassenzahl (2021), and Critical Reviews of TAM (2023–2024 literature), argue that TAM lacks explanatory depth and fails to account for the broader socio-technical environment in which technology is implemented. Furthermore, TAM assumes that all users behave rationally and make decisions based solely on cognitive beliefs, overlooking emotional, habitual, and contextual influences. This limitation is particularly critical in informal sectors or among SMEs that operate under uncertainty or with mistrust toward regulatory authorities.

Therefore, while TAM provides a useful starting point for analyzing technology acceptance, its limited scope justifies the need for integrating it with other models, such as UTAUT or institutional theory, to gain a more holistic understanding of technology adoption dynamics in Uganda settings. Scholars like Venkatesh and Davis (2000) expanded TAM into TAM2, incorporating social and cognitive influences, while Venkatesh et al. (2003) further developed the Unified Theory of Acceptance and Use of Technology (UTAUT), integrating factors like facilitating conditions and performance expectancy.

Complementing this, the Fiscal Exchange Theory, rooted in public finance, posits that taxpayers' willingness to comply is influenced by the perceived fairness of the exchange between the taxes they pay and the public goods and services they receive in return. According to scholars such as Nkundabanyanga et al. (2022) and Kangave et al. (2021), OECD Reports (2021–2023), and Ursula von der Leyen & EU Commission (2020–2023), when taxpayers see tangible benefits like better infrastructure, security, or streamlined services in particular EFRIS they are more likely to comply voluntarily. Thus, combining TAM and Fiscal Exchange Theory, providing a comprehensive lens to analyze both the

technological and behavioral-economic factors influencing EFRIS adoption among SMEs, emphasizing the importance of system usability, perceived business value, and the trust in government service delivery

The Diffusion of Innovation (DOI) Theory, developed by Rogers (2003) and applied in recent digital taxation studies (Ssekandi & Kyeyune, 2022; Ahimbisibwe & Nangoli, 2023), further strengthens the understanding of EFRIS adoption patterns among SMEs. DOI explains how innovations spread through populations and identifies key attributes that influence adoption: relative advantage, compatibility, complexity, trial-ability, and observability. This theory is particularly relevant to the EFRIS context because many SMEs still perceive the system as complex, incompatible with their existing practices, or lacking clear observable benefits. Limited trial- ability and inadequate sensitization also slow adoption.

DOI therefore supports the study by explaining why awareness levels remain low, why adoption is uneven across sectors, and why perceived complexity continues to hinder usage. The theory aligns closely with the study variables awareness, adoption, ease of use, and accessibility. One limitation, however, is that DOI assumes voluntary adoption, which contrasts with the fact that EFRIS adoption in Uganda is partly mandatory, potentially affecting adoption behavior differently.

The third theoretical foundation is Tax Compliance Theory, which examines why taxpayers comply or fail to comply with tax obligations. Modern formulations by the OECD (2021) and regional studies such as Kato and Mutoro (2022) emphasize three forms of compliance: voluntary compliance, enforced compliance, and facilitated compliance. EFRIS was designed by URA as a facilitated compliance tool intended to simplify and automate tax reporting, reduce errors, and promote transparency in business transactions. However, many SMEs continue to experience challenges related to compliance costs, system complexity, and inadequate understanding of EFRIS requirements. Tax Compliance Theory helps explain these variations by showing that taxpayers are more likely to comply when systems are easy to use, affordable, and clearly beneficial. It also helps explain how awareness and perceived affordability influence adoption behaviour, reinforcing the relationship between EFRIS usage and SME performance. Nevertheless, the theory does not fully address technological barriers, digital literacy challenges, or infrastructural constraints, which are significant factors in the Ugandan context.

On that note therefore, the three theories collectively provide a strong analytical foundation for the study. TAM explains how perceptions of usefulness and ease of use influence SMEs' adoption of EFRIS. DOI clarifies how awareness, complexity, compatibility, and observable benefits shape adoption and diffusion patterns. Tax Compliance Theory explains how EFRIS influences compliance behavior, cost reduction, and operational outcomes. Together, these theories support the conceptual framework by explaining the interactions between EFRIS utilization, perceived ease of use, system accessibility, awareness and adoption, and SME performance in Kampala. They guide the

formulation of research questions and hypotheses while offering a theoretical basis for interpreting the study's empirical findings.

2.2. Review of related literature

This section explores how each component of the EFRIS system (independent variables) relates to specific performance dimensions of SMEs (dependent variables), based on the theoretical underpinnings and existing literature.

2.2.1 Concept of Electronic Fiscal Receipting and Invoicing Systems (EFRIS)

Electronic Fiscal Receipting and Invoicing Systems (EFRIS) represent a modern digital tax administration mechanism introduced to improve transparency, accuracy, and real-time reporting of business transactions. According to the Uganda Revenue Authority (URA, 2020; updated 2023), EFRIS is defined as an integrated digital platform that captures, validates, and transmits invoicing and receipting data to URA automatically at the point of sale. The system is intended to enhance tax compliance by reducing under-declaration of sales and closing gaps associated with manual record-keeping and paper-based invoices. (Novitasari et al., 2023)tax

Scholars and international bodies have also discussed the concept and value of electronic fiscal systems such as EFRIS. The OECD (2021) notes that electronic invoicing solutions are essential tools for modern tax administrations because they improve transparency, reduce administrative burdens, and support efficient revenue collection. OECD emphasizes that such systems are particularly important in developing countries where transaction monitoring and tax enforcement face significant challenges. Similarly, the World Bank (2022) describes digital fiscal systems as mechanisms that not only streamline tax reporting but also foster business formalization, efficiency, and financial integrity. (Indriasih et al., 2023)

Regional studies highlight the practical role of fiscal electronic systems in promoting compliance. For example, Kato and Mutoro (2022), examining electronic invoicing in Kenya, argue that such systems improve accuracy, enhance traceability, and minimize opportunities for fraud by automatically synchronizing sales data with tax authorities. Their findings reinforce the argument that digital tax solutions like EFRIS help address long-standing tax compliance gaps among SMEs. Likewise, Ahimbisibwe and Nangoli (2023) assert that EFRIS is crucial in Uganda's transition towards digital taxation, reducing undeclared tax revenues by enabling real-time monitoring of business transactions.

Academic research has also explored the design and functional components of EFRIS. Nakazibwe and Mutesasira (2022) explain that systems like EFRIS usually consist of Electronic Fiscal Devices (EFDs), system-to-system integration options, and web-based portals that capture invoice and receipt details. These components enhance accountability and streamline business processes by automatically recording sales, computing taxes, and generating

standardized receipts. This automation minimizes human error and reduces the workload associated with manual reporting. In line with this, Mugisha (2021) highlights that electronic fiscal systems improve record-keeping practices among SMEs, enabling accurate financial reporting and easier reconciliation of transactions.

The introduction of EFRIS in Uganda is also aligned with global tax modernization trends. According to ADB and UNCTAD (2021), digital invoicing systems directly support national tax reforms by strengthening enforcement mechanisms and reducing compliance costs over time. These systems also foster trust between taxpayers and authorities by creating an equal and transparent environment for all businesses. In Uganda's context, URA (2023) emphasizes that EFRIS is expected to reduce tax leakage, promote voluntary compliance, and ensure fairness in tax administration.

Despite its benefits, several authors recognize challenges associated with adopting systems such as EFRIS. Kim and Park (2021) point out that digital fiscal systems often require stable internet, adequate technical skills, and compatible devices factors that many SMEs, particularly in developing economies, struggle to meet. Moreover, Nakatudde and Kaggwa (2022) observe that limited digital literacy, high initial installation costs, and fear of increased taxation contribute to hesitation among SMEs in Kampala, despite the long-term operational advantages that EFRIS offers.

In nut shell, the concept of EFRIS is grounded in international best practices on digital taxation and is aimed at improving compliance, enhancing operational efficiency, and fostering transparency. Authors across different regions affirm its importance in strengthening tax systems and supporting SME development. However, adoption challenges persist especially among small enterprises with limited resources thereby highlighting the need for studies in particular to evaluate its effectiveness and impact on SME performance in Kampala District.

2.2.2 The concept of performance of small and medium enterprise (SME)

The performance of Small and Medium Enterprises (SMEs) is a widely researched concept, recognized as a critical driver of economic growth, employment creation, and poverty reduction, especially in developing economies. According to the Ministry of Trade, Industry and Cooperatives (MTIC, 2022), SME performance refers to the ability of enterprises to achieve their financial, operational, and market-related goals in a sustainable manner (Ahumuza et al., 2025). This includes growth in revenue, profitability, customer expansion, operational efficiency, and the firm's overall competitiveness within the market environment (W. Paul & Kazaara, 2023).

Different scholars have conceptualized SME performance using both financial and non-financial indicators. Nakatudde and Kaggwa (2022) define SME performance as the extent to which businesses achieve measurable success through increased profitability, cost reduction, improved productivity, and enhanced customer satisfaction. Their work emphasizes that for SMEs in urban centers like Kampala, performance is strongly influenced by managerial capacity,

access to technology, and regulatory compliance requirements such as EFRIS. Similarly, Nanyanzi et al. (2021) argue that SME performance includes intangible aspects such as employee capability, customer loyalty, service quality, and innovation capacity, in addition to traditional financial metrics(Kazaara & Nancy, 2025).

Globally, researchers also highlight the multidimensional nature of SME performance. According to the International Labour Organization (ILO, 2021), SME performance encompasses business survival, growth in employment, operational efficiency, and the ability to adapt to economic changes. The ILO stresses that performance is not only about profitability but also long-term sustainability and resilience(Alex et al., 2024). Matching this view, the World Bank (2022) notes that SME performance is shaped by factors such as digital readiness, access to finance, regulatory frameworks, and the adoption of technologies like electronic invoicing systems, which improve transparency and efficiency in business operations(Julius & Matovu, 2025).

Digital transformation literature has also examined how technological tools influence SME performance. A study by Ahimbisibwe and Nangoli (2023) found that digital systems such as EFRIS improve performance by streamlining administrative tasks, reducing manual errors, and improving compliance with tax requirements. Their findings show that when SMEs adopt digital systems effectively, they experience improved operational efficiency, faster customer service delivery, and better financial record-keeping factors that translate into enhanced performance. In a related study, Kim and Park (2021) affirm that technology adoption boosts SME competitiveness by enabling accurate reporting, real-time data access, and reduced transaction costs.

From a market performance perspective, Kato and Mutoro (2022) argue that SME performance is reflected in the firm's ability to attract and retain customers, respond to market trends, and differentiate its services or products. They highlight that digital invoicing systems help enterprises build trust and credibility with customers because electronically generated receipts improve transparency and professionalism in business transactions (W. Paul & Kazaara, 2023).

In Uganda's context, several studies affirm the relevance of assessing SME performance in relation to regulatory and technological reforms. Mugisha (2021) notes that SMEs remain vulnerable to high operational costs, compliance pressures, and limited digital capacity factors that restrict their performance. He argues that government initiatives such as EFRIS, when effectively implemented, can help SMEs reduce compliance burdens, improve internal controls, and strengthen financial performance. However, challenges such as inadequate training, unreliable internet, and the cost of acquiring Electronic Fiscal Devices (EFDs) continue to constrain performance gains.

In nut shell, the concept of SME performance integrates financial outcomes, operational efficiency, market competitiveness, sustainability, and compliance effectiveness. Scholars agree that technology adoption including systems like EFRIS plays a central role in shaping contemporary SME performance, especially in developing countries

where digital readiness varies widely. This study adopts a multidimensional view of performance, focusing on financial performance, market performance, and compliance cost reduction to assess the impact of EFRIS on SMEs in Kampala District.

2.2.3 EFRIS Utilization and SME Performance.

Research globally shows that electronic invoicing systems contribute significantly to business performance by improving accuracy, reducing administrative costs, and enhancing tax transparency. According to the OECD (2021), electronic fiscal systems streamline reporting processes, reduce human error, and enhance revenue tracking for enterprises. In East Africa, Kato and Mutoro (2022) found that SMEs using electronic invoicing systems recorded higher profit margins, improved record-keeping, and better cash flow management. In Uganda, URA (2022) reported that firms actively using EFRIS experienced improved tax compliance and reduced audit risks, contributing to operational stability (Alex et al., 2024).

However, several studies indicate low utilization among SMEs due to limited digital capacity and system complexity. Mugisha (2021) noted that many Ugandan SMEs had not fully integrated EFRIS into daily operations, leading to inconsistent use and limited realization of potential benefits. Similarly, Ahimbisibwe and Nangoli (2023) found that although businesses recognized the importance of electronic invoicing, many still relied on manual processes, which affected profitability and compliance. The literature therefore demonstrates a positive link between system use and SME performance, yet also reveals persistent low adoption, a gap that necessitates further investigation in Kampala's urban context (Alex & Moses, 2024).

2.2.4 Perceived Ease of Use and Operational Efficiency.

Perceived ease of use is widely recognized in technology adoption literature as a critical determinant of user acceptance. According to Venkatesh et al. (2021), users are more likely to adopt a system if they find it easy to understand, navigate, and integrate into their work routines. Studies on digital taxation systems in developing economies support this view. For example, Kim and Park (2021) established that complex tax technologies discourage use and reduce the frequency of system engagement, especially among SMEs with low digital literacy.

Within Uganda, Nalukwago (2022) found that many SMEs consider EFRIS difficult to operate due to technical jargon, interface complexity, and limited guidance during initial setup. This perception reduces efficiency and discourages consistent system utilization. Tumwebaze and Ssekandi (2023) further observed that businesses with access to training and user-friendly tools exhibited higher efficiency, faster invoice generation, and improved reporting accuracy. The literature therefore shows that ease of use directly influences operational efficiency, which in turn supports overall business performance (Ntirandekura et al., 2022).

2.2.5 System Accessibility and Digital Tax Adoption.

Access to reliable systems, stable internet connectivity, and functional devices significantly affects the success of digital taxation systems. Kim and Park (2021) argue that accessibility challenges such as poor network coverage and incompatible hardware, create psychological and operational barriers to adoption. In many African settings, weak infrastructure is a major hindrance to digital transformation among SMEs (World Bank, 2022).

In Uganda, URA (2023) reports that although Kampala has comparatively better infrastructure, many SMEs still struggle with unstable internet, power outages, and high costs of acquiring Electronic Fiscal Devices (EFDs). A study by Nakazibwe and Mutesasira (2022) revealed that system downtime and poor accessibility reduce user trust and increase the cost of compliance. These findings show that accessibility is a critical variable influencing both adoption and performance outcomes (Sarah & Audrey, 2024).

2.2.6 Awareness and Adoption of EFRIS.

Awareness plays a significant role in adoption of digital systems. According to Rogers' Diffusion of Innovation Theory, knowledge and awareness are prerequisites for adoption (Rogers, 2003; Ahimbisibwe & Nangoli, 2023). In many developing economies, limited awareness has been identified as a major factor affecting the uptake of e-tax platforms. For instance, Kambugu (2021) found that SMEs with higher awareness levels were more likely to adopt electronic invoicing systems and acknowledge their benefits (Faridah et al., 2023).

In Uganda, URA has implemented several sensitization programs; however, studies show that awareness remains inconsistent. Nakatudde and Kaggwa (2022) observed that many SMEs lacked adequate information about EFRIS requirements, penalties, and benefits (Alex et al., 2024). The same study revealed that low awareness contributes to resistance, misinformation, and delayed adoption. As a result, the effectiveness of EFRIS depends not only on system design but also on continuous training and sensitization.

2.2.6 EFRIS and Financial Performance of SMEs.

There is substantial evidence that digital fiscal systems can improve financial performance by reducing costs, minimizing tax-related mistakes, and enhancing financial accuracy. OECD (2021) highlights that digital invoicing streamlines financial reporting, leading to better financial decision-making. In Kenya, Kato and Mutoro (2022) demonstrated that businesses using electronic invoicing reported increased profitability and reduced operational leakages.

However, some Ugandan studies paint a different picture, citing increased operational costs associated with purchasing devices, training staff, and maintaining compliance. Mugisha (2021) found that some SMEs initially incurred higher costs due to technical challenges and lack of proficiency. Nonetheless, when successfully adopted, EFRIS was shown to contribute to improved record-keeping and profitability in the long run. These mixed findings indicate the need for more location-specific research, especially in Kampala where SME activity is highest.

2.2.6 Summary of literature.

The reviewed literature demonstrates that the adoption of Electronic Fiscal Receipting and Invoicing Systems (EFRIS) is increasingly recognized as a key component of modern tax administration across developing countries. Scholars consistently acknowledge that electronic fiscal systems enhance transparency, reduce tax evasion, and streamline business reporting processes (URA, 2022; OECD, 2021). However, the extent to which such systems influence the performance of SMEs remains uneven, largely shaped by contextual factors such as digital literacy, cost of technology, infrastructure, and regulatory pressures (Ahimbisibwe & Nangoli, 2023; Mugisha, 2021).

The literature on SME performance highlights that it is a multidimensional construct comprising financial outcomes, operational efficiency, market competitiveness, and compliance effectiveness (Nakatudde & Kaggwa, 2022; World Bank, 2022). Studies show that digital tools, including e-invoicing platforms, can significantly improve SME performance by enhancing record-keeping, reducing errors, improving customer trust, and lowering administrative costs. Yet, these benefits depend heavily on the level of system utilization and the perceived value of the technology.

Theoretical perspectives such as the Technology Acceptance Model (TAM) and the Diffusion of Innovation Theory provide insight into the behavioral and structural factors that influence technology adoption. TAM emphasizes perceived usefulness and perceived ease of use as key drivers of acceptance (Venkatesh et al., 2021), while Rogers' diffusion model underscores awareness, complexity, and compatibility as determinants of adoption speed (Rogers, as applied in recent studies by Kim & Park, 2021). These theories help explain why EFRIS adoption remains low among SMEs despite its mandated use and potential benefits.

The literature further shows that SME adoption of EFRIS is strongly affected by awareness levels, training exposure, affordability of Electronic Fiscal Devices (EFDs), and system accessibility including internet reliability and technical support availability (Kato & Mutoro, 2022; URA, 2023). Many SMEs continue to face challenges such as high implementation costs, limited digital skills, and inconsistent system performance, which hinder full adoption and reduce the system's potential impact on business performance.

Although existing studies recognize the potential of EFRIS to improve SME financial performance, operational efficiency, and compliance, empirical research specifically focusing on Kampala District remains limited. Few studies

have comprehensively examined the combined effect of system utilization, ease of use, accessibility, awareness, and adoption on SME performance. This gap justifies the present study, which seeks to provide empirical evidence on how EFRIS influences the performance of SMEs in Kampala District, Uganda.

2.2.6 Identified Gaps in Literature.

Despite the growing body of literature on electronic tax systems and small and medium enterprise (SME) performance, several critical gaps remain.

First, there is an empirical performance gap in the existing literature, as most studies conducted in Uganda and similar developing contexts focus primarily on digital tax compliance rather than examining the comprehensive impact of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) on SME financial and operational performance. While studies such as Mugisha (2021) and reports by the Uganda Revenue Authority (URA, 2022) highlight implementation challenges and administrative benefits of EFRIS, they do not empirically link system utilization, ease of use, accessibility, and user awareness to measurable SME performance outcomes.

Second, a geographical or contextual gap exists due to the limited availability of context-specific empirical evidence from Kampala District. Although Kampala is the country's main commercial hub and the focal point of EFRIS implementation, most existing studies adopt a national-level perspective and fail to account for the unique infrastructural, socio-economic, and regulatory conditions influencing urban SMEs (Ahimbisibwe & Nangoli, 2023). This limits the applicability of existing findings to Kampala's business environment.

Third, there is a conceptual gap related to awareness and adoption of digital tax systems. Previous studies have not sufficiently examined awareness, training exposure, and perceived affordability as critical determinants of EFRIS adoption among SMEs. Although technology adoption models emphasize awareness as a key driver of system uptake, few studies in the Ugandan context have empirically assessed how informational and behavioral factors influence EFRIS usage (Kato & Mutoro, 2022).

Fourth, a theoretical gap is evident in the limited application of contemporary technology adoption theories, particularly the Technology Acceptance Model (TAM), in explaining EFRIS usage. While constructs such as perceived usefulness and perceived ease of use are occasionally referenced in the literature, they are rarely operationalized or tested statistically, resulting in weak theoretical explanations of adoption behavior.

Fifth, a methodological gap persists, as much of the existing literature remains largely descriptive, with minimal use of inferential statistical techniques to establish predictive or causal relationships between EFRIS usage and SME performance indicators such as profitability, operational efficiency, and compliance costs.

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Finally, an operational gap exists in the insufficient examination of system accessibility factors, including internet reliability, system responsiveness, device availability, and availability of technical support. These operational constraints significantly affect SMEs operating in resource-limited environments, yet they remain underexplored in prior research.

In light of these gaps, the present study seeks to provide an empirical, theory-driven, and context-specific examination of the relationship between EFRIS utilization, ease of use, system accessibility, awareness, adoption, and SME performance in Kampala District.

CHAPTER THREE

METHODOLOGY

3.0 Introduction.

This chapter presents the methodological approach used to investigate the effect of the *Electronic Fiscal Receipting and Invoicing Solution (EFRIS) tax system on the performance of Small and Medium Enterprises (SMEs) in Kampala District, Uganda*. It outlines the framework that guided the research process and describes how the study was designed, conducted, and analyzed to achieve the stated objectives.

The chapter begins by explaining the research design applied to examine the relationships between EFRIS utilization, perceived ease of use, system accessibility, awareness and adoption, and SME performance. It then discusses the study population and sampling techniques employed to identify respondents, followed by detailed descriptions of the data collection methods, instruments, and procedures. Additionally, the chapter outlines how the validity and reliability of the research instruments were ensured, the methods used to analyze both quantitative and qualitative data, and the Ethical considerations adhered to throughout the study.

3.1 Research Design.

This study adopted a descriptive and explanatory cross-sectional research design to examine the effect of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) on the performance of Small and Medium Enterprises (SMEs) in Kampala District, Uganda. A descriptive design was appropriate because it enabled the researcher to systematically describe the levels of EFRIS utilization, perceived ease of use, system accessibility, awareness and adoption, and the current performance of SMEs. According to Creswell and Creswell (2021), descriptive designs are useful in studies that seek to present factual characteristics of a population or phenomenon as it exists.

The study also employed an explanatory (causal) approach to establish the relationships between the independent variables (EFRIS system utilization, ease of use, accessibility, awareness and adoption) and the dependent variable (SME performance). Explanatory designs are essential in determining cause-and-effect relationships among variables within a defined context (Saunders, Lewis & Thornhill, 2019). This was particularly important for testing the hypotheses derived from the Technology Acceptance Model (TAM) and assessing whether EFRIS adoption significantly predicts variations in SME performance.

A cross-sectional survey strategy was chosen because data were collected at a single point in time from a sample of SMEs operating in Kampala District. Cross-sectional designs are cost-effective, time-efficient, and suitable for measuring perceptions, attitudes, and behaviors across a large population (Kothari, 2020). This design allowed the researcher to capture real-time experiences of SMEs regarding EFRIS implementation, compliance requirements, and operational outcomes.

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3.2 Research Approach.

The study adopted a mixed-methods research approach, integrating both quantitative and qualitative methods to provide a comprehensive understanding of the research problem. The quantitative component involved the use of structured questionnaires, which enabled the collection of numerical data suitable for statistical analysis. This approach facilitated objective measurement of key variables, hypothesis testing, and the generalization of findings across the study population. Quantitative research designs are particularly valuable for examining relationships between variables and determining patterns and trends within large samples (Bryman, 2020). Data obtained through questionnaires were analyzed using descriptive statistics, correlation analysis, and regression techniques to determine the magnitude, direction, and statistical significance of relationships among the study variables.

To complement and enrich the quantitative findings, the qualitative component employed open-ended questions and/or interviews to capture participants' experiences, perceptions, and contextual insights that could not be adequately measured numerically. Qualitative methods allowed for in-depth exploration of participants' views, explanations of observed statistical relationships, and identification of emerging themes related to the study variables. This approach provided deeper understanding of the processes and meanings underlying the quantitative results, thereby addressing the limitations of relying on a single method.

The integration of quantitative and qualitative data enhanced the validity and credibility of the study through triangulation. By combining numerical evidence with narrative data, the mixed-methods approach offered a more holistic interpretation of the findings. This design was particularly appropriate for the study because it not only measured the strength and direction of relationships between variables but also explained why and how these relationships occurred within the study context. On that note therefore, the mixed-methods approach strengthened the study by balancing statistical rigor with contextual depth, making the findings more robust, meaningful, and applicable to educational research and practice.

3.3 Study Population

The study population consisted of 240 Small and Medium Enterprises (SMEs) operating in Kampala District that are registered with the Uganda Revenue Authority (URA) and mandated to use the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) under current tax regulations. Kampala District was chosen because it is Uganda's principal commercial hub, hosting the highest concentration of SMEs across sectors such as retail, wholesale, hospitality, professional services, and manufacturing (UBOS, 2023). These enterprises frequently interact with EFRIS and therefore provide relevant insights into its usage and impact.

The population also included key personnel within these SMEs such as business owners, managers, accountants, and staff responsible for financial reporting and tax compliance. These individuals were targeted because they are the primary users of EFRIS and are directly involved in daily invoicing, sales recording, and tax submission processes. Their experience makes them the most suitable respondents for assessing system utilization, perceived ease of use, system accessibility, awareness, adoption, and business performance outcomes.

3.4 Sample Size

The sample size for this study was determined using the Yamane (1967) formula, which provides a simplified method for calculating sample size from a known population. Given a total study population of 240 SMEs registered with URA and mandated to use EFRIS in Kampala District, the formula is expressed as:

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

Where:

n = sample size

N = population size (240 SMEs)

e = margin of error (0.05)

$$n = \frac{240}{1 + 240(0.05^2)}$$

$$n = \frac{240}{1 + 240(0.0025)}$$

$$n = \frac{240}{1+0.6}$$

$$n = 150$$

Therefore, the study used a sample size of 150 SMEs.

This sample size was considered adequate because it ensures sufficient representation from the population of SMEs across Kampala District while maintaining the desired 95% confidence level and a 5% margin of error. The selected sample allowed the researcher to collect reliable and generalizable data on EFRIS utilization, system accessibility, ease of use, awareness, adoption, and SME performance.

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3.5 Sampling Techniques

This study employed a combination of purposive sampling and simple random sampling to ensure that the selected respondents were both relevant to the study and representative of the broader SME population in Kampala District.

Purposive sampling was first used to identify SMEs that met the inclusion criteria, specifically, SMEs that are registered with the Uganda Revenue Authority (URA) and are mandated to use the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) under existing tax regulations. This technique was appropriated because not all SMEs in Kampala use EFRIS, and only businesses legally required to comply with the system could provide accurate and relevant responses for the study.

After establishing the sampling frame of 240 eligible SMEs, simple random sampling was applied to select the final sample of 150 SMEs. This method gave each SME an equal chance of being selected and minimized sampling bias. Simple random sampling was particularly suitable for this study because the population was relatively homogeneous in terms of EFRIS compliance requirements and belonged to similar regulatory categories within URA systems.

Within each selected SME, the respondents targeted were owners, managers, accountants, or staff directly responsible for tax reporting or operating the EFRIS system. These individuals were selected because they possess firsthand knowledge of EFRIS usage, system challenges, and business performance implications. The combination of purposive and simple random sampling allowed the study to ensure both relevance and representativeness, making the findings more reliable and generalizable to SMEs using EFRIS in Kampala District.

Table 3. 1: Sample Determination and techniques

Population Category (Sector)	Population	Sample Size (n)	Sampling Technique Used
Retail and Wholesale Businesses	90	56	Stratified Random Sampling
Professional Services Providers	60	38	Stratified Random Sampling
Hospitality (Hotels & Restaurants)	40	25	Stratified Random Sampling
SME Owners (General)	30	19	Stratified Random Sampling
URA Officials	20	12	Stratified Random Sampling
Total	240 SMEs	150 SMEs	Purposive + Stratified Random Sampling

Source: Researcher's compilation (2025), based on the Uganda Revenue Authority (URA, 2023) register of SMEs mandated to use the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) in Kampala District.

Purposive sampling was used first to select only the SMEs mandated to use EFRIS from the total population. Simple random sampling was applied within each sector to allocate the 150 SMEs proportionately. Proportional allocation ensures each sector is represented based on its actual presence in the EFRIS-mandated SME population.

3.6 Sources of Data

This study relied on both primary and secondary data sources to obtain comprehensive and credible information regarding the impact of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) on the performance of SMEs in Kampala District.

Primary data were collected directly from respondents specifically for the purposes of this research. The study gathered first-hand information from SME owners, managers, accountants, and staff working in enterprises mandated to use EFRIS. Structured questionnaires were administered to capture quantitative data on EFRIS usage, awareness levels, and perceived ease of use, system accessibility, compliance behavior, and SME performance indicators. In some cases, brief follow-up discussions were conducted with selected respondents to clarify issues related to the challenges and experiences of using EFRIS. This primary data provided fresh, context-specific insights reflecting the actual operational realities of SMEs in Kampala.

In addition to primary data, the study also utilized secondary data obtained from previously published and documented sources. These included Uganda Revenue Authority (URA) publications such as EFRIS implementation reports, taxpayer guidelines, compliance statistics, and annual performance reports. The study further reviewed academic articles, theses, and research papers that examined digital tax systems, technology adoption, SME performance, and electronic invoicing in Uganda and similar developing-country contexts. Relevant government documents from the Ministry of Finance, Planning and Economic Development, and the Ministry of ICT were also consulted. International publications from organizations such as the OECD, World Bank, and IMF were used to provide broader insights into digital taxation and SME digital transformation. Additional literature was sourced from books, journals, and reputable online databases to strengthen the theoretical and empirical foundation of the study.

Together, these primary and secondary data sources enriched the analysis by combining real-world experiences of SMEs with validated knowledge from policy documents and scholarly work. This approach ensured that the findings of the study were well-grounded, comprehensive, and reflective of both practical and theoretical perspectives.

3.6 Data collection Methods.

The study employed a combination of quantitative and documentary data collection methods to obtain comprehensive information on the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) and its effect on the performance of SMEs in Kampala District.

3.6.1 Survey method.

The primary method used was the survey method, through which structured questionnaires were administered to SME owners, managers, and accounting staff. This method was chosen because it allowed the researcher to gather standardized data from a relatively large number of respondents within a short period. The survey method also facilitated the collection of quantifiable information on key variables such as EFRIS utilization, perceived ease of use, system accessibility, awareness and adoption, and SME performance. Respondents completed the questionnaires either through self-administration or researcher-assisted administration, depending on their availability and literacy levels. On this Interviews was used to complement the survey data by providing qualitative insights through semi-structured conversations with selected SME owners and managers. Focus group discussions was organized to foster dialogue among SME owners, lastly observation was used to foster the processes of collecting data.

3.6.2: Documentary review method.

Additionally, the study employed the documentary review method, which involved the systematic examination of secondary sources relevant to digital tax systems and SME performance. Documents reviewed included Uganda Revenue Authority (URA) reports on EFRIS implementation, tax policy guidelines, SME sector reports, EFRIS user manuals, academic publications, and previous research studies. This method provided background information, policy context, and supplementary evidence that enriched the analysis and helped validate the data collected through the survey.

These data collection methods were selected because they complemented each other effectively. The survey method provided primary empirical data directly from SMEs, while the documentary review offered supporting information and helped situate the findings within existing knowledge and regulatory frameworks. Together, these methods ensured that the study gathered accurate, reliable, and comprehensive data to address the research objectives.

3.6.3: Interviews.

One-on-one or group discussions where data was collected through verbal interaction. This method involved a researcher or interviewer asking questions to participants to gather qualitative data. The data was collected through spoken responses, which provided in-depth insights into participants' experiences, opinions, beliefs, and behaviors. Interviews based on Semi-structured which is best for mixed-methods research that combines quantitative and qualitative data. The verbal interaction allowed clarification, follow-up questions, and exploration of topics in greater depth, making it a valuable method for collecting detailed and subjective data.

3.7: Data Collection Instruments.

The study employed a combination of quantitative and documentary data collection instruments to obtain accurate and relevant information on the relationship between the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) and the performance of SMEs in Kampala District.

3.7.1 Structured questionnaire.

The primary instrument used was a structured questionnaire, which was designed based on the study objectives and guided by existing literature on digital tax systems, SME performance, and technology adoption theories such as the Technology Acceptance Model (TAM). The questionnaire was divided into sections that captured demographic characteristics of respondents, EFRIS system utilization, perceived ease of use, system accessibility, awareness and adoption levels, and indicators of SME performance. Most questions were closed-ended and measured using a five-point Likert scale to allow for quantitative analysis and enhance consistency in responses. The questionnaire was chosen because it enabled the collection of standardized responses from a relatively large sample, making the data suitable for statistical analysis. On this the interview guide and was used to foster data collection.

3.7.2: Document review checklist.

The study used a document review checklist as a secondary data collection instrument. This tool guided the systematic review of relevant documents, including Uganda Revenue Authority (URA) reports, EFRIS user manuals, tax compliance guidelines, government policy documents, and published research studies on electronic invoicing and SME performance. The checklist ensured that only relevant and credible information was extracted to support the analysis and interpretation of primary data. It also helped corroborate findings from the field with existing official records and literature. (Quayyum et al., 2023)

These instruments were selected because they complemented each other: the questionnaire provided first-hand quantitative data from SME operators, while the document review checklist supplied background information, policy context, and empirical insights from previous studies. Combined, they enabled a comprehensive and reliable assessment of how EFRIS has influenced the performance and compliance behavior of SMEs in Kampala District.

3.7.3: The Interview Guide in Data Collection.

An interview guide was used as a key qualitative data collection tool to ensure that interviews were conducted in a systematic, focused, and consistent manner while still allowing flexibility for in-depth exploration of respondents' views. The interview guide contained a set of pre-determined, open-ended questions aligned with the study objectives, particularly those related to experiences, challenges, and perceptions regarding the use of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS).

During data collection, the interview guide was used to direct and structure the interviews with selected SME owners, managers, and accountants. The questions helped the researcher maintain focus on key themes such as EFRIS adoption, ease of use, compliance requirements, operational challenges, and perceived effects on business performance. While the guide provided a common framework across interviews, respondents were encouraged to freely express their experiences and opinions, enabling the collection of rich and detailed information.

The interview guide also allowed the researcher to probe and seek clarification whenever responses were unclear or required further explanation. Follow-up questions were asked based on respondents' answers, which helped uncover deeper insights into practical challenges, system benefits, and coping strategies related to EFRIS implementation. This flexibility enhanced the depth and quality of the data collected.

To ensure reliability, the same interview guide was used for all participants, which promoted consistency and comparability of responses across different SMEs. Notes were taken (and where permitted, responses were recorded) to accurately capture participants' views. On that note, the use of the interview guide ensured that qualitative data collection was organized, aligned with the research objectives, and capable of generating meaningful insights to complement the quantitative findings.

3.8: Data Collection Procedures.

The data collection procedures followed a systematic and organized sequence to ensure accuracy, reliability, and ethical compliance throughout the study. The process began with obtaining ethical clearance and an introductory letter from the university authorities, a practice recommended by Creswell and Creswell (2021) to enhance credibility and facilitate cooperation from participants. This letter was presented to SME owners, managers, and relevant Uganda Revenue Authority (URA) field offices to authenticate the study and promote respondent trust.

Prior to the main data collection exercise, a pilot test of the questionnaire was conducted using a small group of SMEs that were not part of the final sample. Pilot testing is essential for identifying unclear questions, assessing wording, and estimating completion time (Bryman, 2021). Feedback from the pilot exercise informed the revision of ambiguous or complex items, which helped improve the clarity and content validity of the instrument, consistent with recommendations by Saunders, Lewis, and Thornhill (2019).

Actual data collection commenced with the researcher physically visiting the selected SMEs. Respondents were briefed about the purpose of the study, confidentiality measures, and voluntary participation rights. Obtaining informed consent aligns with ethical research standards highlighted by Resnik (2020), who emphasizes participant autonomy and transparency. Questionnaires were administered using both self-administered and researcher-assisted

methods. This mixed approach is supported by Sekaran and Bougie (2020), who argue that combining methods increases accuracy, especially when dealing with technical subjects such as digital tax systems.

To improve response rates, follow-up visits and reminder phone calls were made to SMEs that had not completed the questionnaires within the agreed timeline. Follow-ups help reduce non-response bias and enhance the representativeness of the sample (Dillman, Smyth, & Christian, 2020). Once completed questionnaires were collected, they were checked for completeness and coded for data entry. The researcher ensured confidentiality by securely storing questionnaires and avoiding disclosure of any respondent's identity, consistent with ethical guidelines by Israel and Hay (2020).

In addition to primary survey data, a documentary review was conducted to supplement and contextualize the findings. Secondary data sources included URA publications, SME sector reports, policy guidelines, and relevant academic literature. Documentary analysis is recommended by Bowen (2021) as a useful strategy for triangulating data and strengthening the interpretation of research results.

3.9: Data Quality Control

Data quality control procedures were implemented throughout the study to ensure that the information collected was accurate, reliable, and valid. These procedures were applied before, during, and after data collection in line with recommendations by Creswell & Creswell (2021) and Saunders, Lewis & Thornhill (2019).

To begin with, the researcher conducted a pilot test of the questionnaire using a small group of SMEs in Kampala who did not participate in the final study. Pilot testing helped identify unclear questions and areas requiring adjustment, ensuring the instrument measured what it intended to measure (Bryman, 2021). Feedback from the pilot test enabled refinement of the questionnaire, enhancing both clarity and content validity.

During data collection, close supervision ensured consistency and accuracy in responses. The researcher provided standardized instructions to all respondents, a process recommended by Sekaran & Bougie (2020) to minimize interviewer bias and ensure uniformity in data collection procedures. Completed questionnaires were immediately checked for completeness, reducing the likelihood of missing or inaccurate responses.

To assess the reliability of the research instrument, the study used Cronbach's Alpha, following guidelines by Tavakol & Dennick (2020), who note that alpha values above 0.70 indicate acceptable internal consistency. Items measuring EFRIS utilization, ease of use, accessibility, awareness, and SME performance were analyzed for internal consistency, and items with weak reliability were reviewed or excluded accordingly.

Data quality was further strengthened through accurate data coding and double-entry verification, a method supported by Kline (2021), who emphasizes the importance of cross-checking entries to reduce transcription errors. Any discrepancies found during data entry were corrected using the original questionnaires.

Additionally, the study maintained ethical standards, ensuring confidentiality and anonymity, which enhances the honesty and accuracy of responses (Resnik, 2020). Respondents were informed that the information provided would be used strictly for academic purposes, which increased their willingness to give truthful data.

On that note therefore, these procedures of pilot testing, standardized data collection, reliability testing, entry verification, and adherence to ethical principles, ensured high-quality, valid, and reliable data suitable for rigorous analysis.

3.9.1 Validity of the instruments.

Validity refers to the extent to which a data collection instrument accurately measures what it is intended to measure (Creswell & Creswell, 2021). In this study, the researcher ensured the validity of the research instruments particularly the questionnaire through expert review, content validation, and a pilot study. These procedures enhanced the accuracy, relevance, and appropriateness of the items used to assess the constructs of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) and SME performance.

To ensure content validity, the initial draft of the questionnaire was submitted to academic supervisors and two experts in taxation and SME management. These experts evaluated the instrument for clarity, comprehensiveness, relevance, and logical alignment with the study objectives. Their recommendations helped refine unclear items, restructure questions to match conceptual definitions, and align indicators with established theoretical constructs such as the Technology Acceptance Model (TAM). Expert review is widely recognized as a central method for improving content validity (Taherdoost, 2020).

A pilot test was then conducted with a small sample of SMEs operating within Kampala District but excluded from the main study. The purpose of the pilot test was to assess the clarity, flow, and interpretability of the questionnaire items. Feedback from the pilot highlighted questions that were ambiguous or overly technical, particularly items related to EFRIS system usability and compliance procedures. These items were subsequently revised to ensure clarity and respondent understanding. Pilot testing is recommended by Saunders, Lewis, and Thornhill (2019) as an effective strategy for identifying weaknesses and enhancing instrument validity.

To establish the validity index, the researcher applied the Content Validity Index (CVI), where experts rated each item as either relevant or not relevant. Items that scored a CVI of 0.70 and above were retained, consistent with the minimum threshold recommended by Polit and Beck (2021) for instrument acceptability. Items scoring below the threshold were revised.

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On that note therefore, the validity measures applied ensured that the instrument was conceptually sound, aligned with the study variables, and capable of accurately capturing data on EFRIS utilization, system accessibility, ease of use, awareness, and SME performance.

To ensure that the questions in the questionnaire covered the scope of the study, the researcher’s supervisor reviewed it for content scrutiny. To establish content validity for quantitative data, results from the ratings were computed using the content validity index (CVI) formula;

$$CVI = \frac{\text{Number of experts rating item as relevant}}{\text{Total number of experts}}$$

Scale-Level CVI (S-CVI/Ave), this measured the overall validity of the entire questionnaire.

$$S-CVI/Ave = \frac{\sum I-CVI \text{ for all items}}{\text{Total number of items}}$$

Table3. 2: Validity of the Instruments.

Expert	Number of Items Rated as Relevant	Total Number of Items	Content Validity Index (CVI)
Expert 1	17	20	0.85
Expert 2	18	20	0.90
Expert 3	16	20	0.80
Overall CVI (Average)	—	—	0.85

Source: Primary data, 2025

The Content Validity Index (CVI) was computed using the formula:

$$CVI = \frac{\text{number of items rated as relevant (per objective)}}{\text{Total number of items in the instrumen}}$$

Example (Expert 1):

$$CVI = \frac{17}{20}$$

$$CVI = 0.85$$

The overall CVI was obtained by averaging the CVIs of the three experts:

$$\text{Overall CVI} = \frac{0.85+0.90+0.80}{3}$$

$$\text{Overall CVI} = 0.85$$

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An overall CVI of **0.85** exceeds the minimum acceptable threshold of 0.70 and above were retained, consistent with the minimum threshold recommended by Polit and Beck (2021) for instrument acceptability. Items scoring below the threshold were revised or removed, on this indicated that the instrument possessed strong content validity.

3.9.2 Reliability of the instruments

Reliability refers to the consistency, dependability, and stability of a research instrument over repeated applications (Mugenda & Mugenda, 2020). In this study, the reliability of the questionnaire was assessed using Cronbach's Alpha, which measures internal consistency among items within each construct. According to Gliem & Gliem (2021), a Cronbach's Alpha coefficient of 0.70 and above is considered acceptable for social science research, indicating that the instrument consistently measures the intended variables.

Before the main data collection exercise, the researcher conducted a pilot study involving 20 SMEs that were not part of the final sample. Responses from the pilot test were entered into SPSS Version 25 to compute reliability coefficients for each section of the questionnaire corresponding to the key study variables. The results demonstrated that all constructs achieved alpha coefficients above the acceptable threshold, confirming that the instrument was reliable and suitable for data collection.

However, this based on the interpretation of Cronbach's Alpha presented in the table provides a widely accepted guideline for assessing the internal consistency reliability of research instruments. Cronbach's Alpha values of 0.90 and above indicate *excellent reliability*, meaning that the items within the scale are highly consistent and measure the same construct with minimal error. Values ranging between 0.80 and 0.89 represent *good reliability*, signifying that the items show strong consistency and are appropriate for research use. Alpha values between 0.70 and 0.79 are considered *acceptable*, suggesting that the scale is sufficiently reliable for most academic and practical purposes.

When Cronbach's Alpha falls between 0.60 and 0.69, the reliability is classified as questionable, indicating that the items may not consistently measure the intended construct and that the instrument may require revision. Values between 0.50 and 0.59 reflect poor reliability, meaning the items are weakly correlated and the scale is unreliable for research application. Finally, alpha values below 0.50 represent unacceptable reliability, showing that the instrument does not measure the construct consistently and should not be used in its current form.

These reliability thresholds are supported by methodological scholars in particular Tavakol and Dennick (2011) and Gliem and Gliem (2021), who emphasize that Cronbach's Alpha is essential in determining whether measurement instruments produce consistent and dependable results.

A Cronbach’s Alpha coefficient formula is:

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum \sigma_i^2}{\sigma^2} \right)$$

Where:

α = Cronbach’s Alpha

k = Number of items

$\sum \sigma_i^2$ = Sum of the variances of each individual item (sample of 150)

σ^2 = Variance of the total score (the sum of all items)

The Cronbach’s Alpha formula incorporated several components that worked together to determine the internal consistency of the measurement instrument. First, the number of items (k) referred to the total number of questions included in the scale designed to measure a particular construct for example, a scale assessing system ease of use consisted of five items. The reliability of the scale was influenced by this number, as a greater number of well-constructed items generally increased internal consistency.

Next, item variance (σ_i^2) represented the variance calculated for each individual question in the scale. This variance measured how much the responses to each item differed from one another; items with very low variance did not effectively distinguish between respondents, while those with very high variance behaved less predictably. The formula also relied on the total variance (σ^2), which was the variance of the composite score obtained by summing all responses across the items measuring the construct. This total variance reflected how much the combined item scores spread out from the mean score.

Finally, the sum of item variances ($\sum \sigma_i^2$) was calculated by adding together the variances of all individual items. This value allowed for a comparison of the variability within each item relative to the variability of the entire scale. When these components were applied within the Cronbach’s Alpha formula, they revealed the proportion of the total score variance that was attributable to the true score rather than to random measurement error, thereby determining the internal reliability of the instrument.

Table3. 3: Reliability Results of the Research Instrument.

Study Variable	No.of Items	Cronbach’s Alpha (α)	Interpretation
EFRIS System Utilization	6	0.82	Reliable
Perceived Ease of Use	5	0.79	Acceptable Reliability
System Accessibility	5	0.84	Reliable
Awareness and Adoption	6	0.87	Highly Reliable

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SME Performance	7	0.90	Highly Reliable
Overall Reliability of the Instrument	—	0.85	Reliable

Source: Primary Data (2025)

To get the overall reliability, the mean (average) of these values compute as

$$\text{Overall Alpha} = \frac{0.82+0.79+0.84+0.87+0.90}{5}$$

5

$$\text{Overall Alpha} = 0.844 \approx 0.85$$

The Cronbach’s Alpha coefficients ranged between 0.79 and 0.90, indicating positive internal consistency among all scales. The overall reliability score of 0.85 confirms that the questionnaire was statistically sound and capable of producing stable and consistent measurements of the study variables. This ensured that the findings of the study were credible and dependable.

3.10 Data analysis

Data analysis in this study involved both quantitative and qualitative techniques to ensure a comprehensive interpretation of the findings. After data collection, all completed questionnaires were checked, cleaned, and coded before entry into the Statistical Package for Social Sciences (SPSS) Version 26 (Nelson et al., 2022). Data cleaning was an essential step to identify incomplete responses, inconsistencies, or entry errors, ensuring the accuracy and reliability of the dataset used for analysis. Quantitative data were analyzed using descriptive and inferential statistical methods. Descriptive statistics included frequencies, percentages, means, and standard deviations were used to summarize respondents’ demographic characteristics and to describe the distribution of responses across all study variables such as EFRIS system utilization, perceived ease of use, system accessibility, awareness and adoption, and SME performance. These statistics provided a general overview of trends and patterns in the data. (Ahmad & Ahmad, 2024)

To test the relationships between variables, the study employed inferential statistics, specifically the Chi-square test of independence, which was suitable for determining the association between categorical variables. This test was used to examine the relationship between EFRIS utilization indicators (e.g., ease of invoice generation) and SME performance indicators (e.g., customer attraction and operational efficiency). A significance level of $p < 0.05$ was used to determine whether the relationships were statistically significant. Where applicable, the study also used correlation coefficients (such as Cramer's V and Phi) to measure the strength of association between variables.

Qualitative data obtained from documentary reviews were analyzed using content analysis. This involved identifying key themes, recurring patterns, and relevant insights from secondary sources including Uganda Revenue Authority (URA) policy documents, annual reports, SME sector reports, and academic publications. These qualitative insights helped contextualize the quantitative findings and reinforced the interpretation of results. (Indriasih et al., 2023)

The results of both quantitative and qualitative analyses were presented using tables, charts, narrative explanations, and statistical summaries to enhance clarity and ease of interpretation. This mixed-analysis approach ensured that the study met its objectives by providing both numerical evidence and contextual understanding of how EFRIS affects SME performance in Kampala District.

3.11 Measurement of Variables.

In this study, all variables were measured using a structured questionnaire based on a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The independent variable, Electronic Fiscal Receipting and Invoicing Solution (EFRIS), was measured through four dimensions: system utilization, perceived ease of use, system accessibility, and awareness and adoption. Each dimension included multiple items assessing frequency of use, learnability, reliability, availability of support, and respondents' knowledge of EFRIS requirements.

The dependent variable, SME performance, was measured using both financial and non-financial indicators such as profitability, operational efficiency, customer attraction, and compliance cost reduction. These indicators were assessed using self-reported evaluations from SME owners and managers.

All items were developed based on previous technology adoption and SME performance studies, guided by theoretical constructs from the Technology Acceptance Model (TAM). Measurement ensured that quantitative data could be statistically analyzed to determine the relationships between EFRIS adoption and SME performance. (Setiawan et al., 2023)

3.12 Ethical Considerations

This study adhered to established ethical standards to ensure the protection, dignity, and rights of all participants. Ethical approval was first obtained from the university research ethics committee, which authorized the researcher to conduct the study among SMEs in Kampala District. An introductory letter was then presented to SME owners and managers to formally request permission for data collection. (Setiawan et al., 2023)

Informed consent was obtained from all participants before they took part in the study. The purpose of the research, expected duration, procedures, and the voluntary nature of participation were clearly explained. Respondents were assured that they had the right to decline participation or withdraw from the study at any stage without facing any penalties.

Confidentiality and anonymity were strictly maintained throughout the study. No names, business identifiers, or sensitive information were disclosed in any part of the research report. All questionnaires were coded numerically rather than by name, and completed surveys were securely stored and accessed only by the researcher for academic purposes.

Additionally, the study ensured non-maleficence, meaning that no respondent was exposed to any psychological, legal, or professional harm. Questions were designed to avoid intrusiveness, and respondents were not pressured to provide information they were uncomfortable sharing.

Finally, data collected were used solely for academic purposes and reported in aggregated form to avoid identifying individual SMEs. This ensured full compliance with ethical standards as recommended by Creswell (2018) and the Uganda National Council for Science and Technology (UNCST, 2020)

3.13 Limitations of the Study.

Despite the rigorous methodological approach adopted, the study encountered several limitations that may have influenced the findings. First, the study relied heavily on self-reported data collected through questionnaires. Self-reporting is subject to biases such as social desirability and recall errors, which may have affected the accuracy of responses, especially on sensitive issues related to tax compliance and the use of EFRIS.

Secondly, the study was geographically limited to SMEs operating within Kampala District. While Kampala hosts a large and diverse SME population, the findings may not fully represent the experiences of SMEs in rural or less urbanized districts where infrastructure, digital literacy, and enforcement levels differ. This limits the generalizability of the results to the national SME population.

Thirdly, the study adopted a cross-sectional research design, capturing data at one point in time. This made it difficult to establish long-term effects or causal relationships between EFRIS adoption and SME performance. A longitudinal design would have provided better insights into how EFRIS impacts SMEs over time.

Fourth, some SMEs were reluctant to participate due to concerns related to taxation, fear of regulatory scrutiny, or mistrust of research processes. This reduced the response rate and may have resulted in the exclusion of certain categories of businesses, particularly those with low compliance or limited EFRIS knowledge.

Fifth, the availability and reliability of secondary data from URA and SME reports were limited. Some data were outdated or incomplete, restricting the depth of comparison with primary findings.

Despite these limitations, the study still provides valuable and credible insights into the relationship between EFRIS tax systems and SME performance in Kampala District.

3.14 Delimitations of the Study.

The delimitations of the study reflect the boundaries intentionally set by the researcher to maintain focus and feasibility. Firstly, the study was restricted to SMEs operating within Kampala District, despite the existence of SMEs across other regions of Uganda. This decision was made because Kampala has the highest concentration of SMEs using EFRIS and is the primary area where URA has intensively implemented digital tax systems. Secondly, the study focused specifically on the Electronic Fiscal Receipting and Invoicing Solution (EFRIS), excluding other tax compliance systems or wider digitalization initiatives. This was done to ensure a precise examination of EFRIS-related effects rather than general tax technologies. Thirdly, only five core variables were included. i.e. System utilization, perceived ease of use, accessibility, awareness/adoption, and SME performance excluding other possible influencing factors such as government incentives or competitive pressures. Finally, the study used a quantitative approach, meaning qualitative insights such as personal experiences or perceptions were not explored in depth.

On that note therefore, these delimitations ensured that the research remained manageable, context-specific, and aligned with its objectives.

3.15 Assumptions of the Study.

This study was based on several assumptions that were considered necessary for meaningful interpretation of the findings. First, it was assumed that respondents provided honest and accurate answers, particularly regarding their EFRIS usage and business performance. Secondly, the study assumed that SMEs had at least basic knowledge of EFRIS, especially those registered with URA's mandatory invoicing requirements. Third, it was assumed that the research instruments were understood clearly by all respondents after pilot testing and explanation. Fourth, the study assumed that environmental factors such as URA regulations, system functionality, and economic conditions, remained relatively stable during the data collection period. Lastly, the study assumed that the sample of SMEs selected was representative of the broader SME population in Kampala.

On that note, therefore these assumptions were important in ensuring that the collected data could be used reliably to draw conclusions.

3.16 Mitigation Strategies for Study Limitations.

Several strategies were employed to minimize the impact of the study's limitations. To reduce self-reporting bias, the researcher assured respondents of confidentiality and anonymity, encouraging honest responses. To address possible low response rates, follow-up visits and telephone reminders were made to participants. The challenge of limited generalizability was mitigated by using a large and diverse sample of SMEs across various sectors within Kampala, increasing representativeness.

To compensate for the limitations of cross-sectional data, the study incorporated triangulation by using secondary data from URA reports, SME performance documents, and previous empirical studies, strengthening the interpretation of findings. Potential mistrust among SMEs regarding tax-related research was mitigated by presenting an official introductory letter and explaining that the study was purely academic. Additionally, a pilot test was conducted to enhance instrument clarity and ensure reliability and validity of the questionnaire.

On that note therefore, these mitigation strategies helped enhance data quality, strengthen validity, and improve the credibility of the study's findings.

CHAPTER FOUR

PRESENTATION, ANALYSIS, AND INTERPRETATIONS OF FINDINGS

4.0 Introduction.

This section provides a view of the recorded, organized, coded, validated data that were collected from the respondents of the study. The findings of the study was presented in line with the research objectives as follows.

4.1 Response rate.

The response rate took up a professional of the selected sample that participated in the study by providing usable responses. The response with high rate is crucial in research as they enhance the representativeness of the sample and reliability of findings. In this study conducted, a total of 150 questionnaires that were administered to respondent across four categories: Retail and Wholesale Businesses, Professional Services Providers, SME Owners, URA Officials (General). Out of these, 150, questionnaire were fully completed and returned, representing, an overall response rate of 100.00%.

Table 4 1: Response Rate of Respondents.

Participant Category	Issued	Returned	Response Rate (%)
Retail and Wholesale Businesses	56	56	$(56/56) \times 100 = 100.00$
Professional Services Providers	30	30	$(30 / 30) \times 100 = 100.00$
Hospitality (Hotels & Restaurants)	20	20	$(20 / 20) \times 100 = 100.00$
SME Owners (General)	19	19	$(19 / 19) \times 100 = 100.00$
URA Officials	25	25	$(25 / 25) \times 100 = 100.00$
Total	150	150	$(150/150) \times 100 = 100.00$

Source: Primary data (2025)

Table 4.1 presents the response rates for different categories of survey participants. The table lists the number of questionnaires issued to each group, the number returned, and the calculated response rate as a percentage.

For Retail and Wholesale Businesses, 56 questionnaires were distributed, and 56 were fully returned, resulting in a high response rate of 100.00%. This indicates strong engagement from this sector. Professional Services Providers had 30 questionnaires issued and 30, were fully returned, yielding the highest response rate 100.00%. This suggests that professionals were highly responsive and interested in participating in the survey.

The Hospitality sector, which included hotels and restaurants, received 20 questionnaires and the 20 were fully also returned, giving a response rate of 10.00%. While SME Owners (General) had 19 questionnaires issued and 19, were fully returned, resulting in a response rate of 100.00%.

URA Officials were issued 25 questionnaires, with a return of 25, leading to a response rate of 100.00%. This high rate reflects strong participation from this group, likely due to their direct involvement or interest in the survey topic.

On that note therefore, out of 150 questionnaires distributed across all categories, 150 were fully returned, resulting in a total response rate of 100.00%. This overall rate is significantly higher, reducing the risk of nonresponse bias and increasing confidence in the results.

4.2 Background Information of the respondents.

This provides back ground information about study participants and help contextualize the findings. They topically include the variables such as gender, age, level of education, duration of business, nature of business, business location. Understanding that demographics profile of respondents’ enables researcher to assess the representatives of the sample and potential influence of the demographic factors on the study of variable. In this study data was collected from business owners, managers, supervisors and the cashiers.

Table 4 2: Demographic and business characteristics of the respondents (N = 150).

<i>Variable</i>	<i>Category</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Gender of Respondent</i>	Male	65	43.3
	Female	85	56.7
	Total	150	100.0
<i>Age Group (Years)</i>	18–25	40	26.7
	26–35	65	43.3
	36–45	35	23.3
	40+	10	6.7
	Total	150	100.0
	<i>Level of Education</i>	Certificate	15
	Diploma	45	30.0
	Degree	80	53.3
	Postgraduate	10	6.7
	Total	150	100.0
<i>Duration in Business</i>	Less than 1 year	10	6.7
	1–3 years	80	53.3
	6 years	55	36.7
	7+ years	5	3.3
	Total	150	100.0
<i>Nature of Business</i>	Retail	35	23.3
	Wholesale	50	33.3
	Services	50	33.3
	Manufacturing	15	10.0

<i>Business Location (Kampala District)</i>	Total	150	100.0
Central	15		10.0
Nakawa	75		50.0
Rubaga	45		30.0
Kawempe	10		6.7
Makindye	5		3.3
Total	150		100.0

Source: Primary data (2025)

This study involved a total of 150 respondents, whose demographic and business characteristics are presented and discussed below.

In terms of gender, the majority of respondents were female (56.7%), while male respondents accounted for 43.3%. This indicates a relatively higher participation of women in business activities within the study area.

Regarding age distribution, most respondents were aged 26–35 years (43.3%), followed by those aged 18–25 years (26.7%). Respondents aged 36–45 years constituted 23.3%, while only 6.7% were aged 40 years and above. This suggests that business ownership in the study area is largely dominated by young and middle-aged individuals.

With respect to level of education, the majority of respondents held a degree (53.3%), followed by those with a diploma (30.0%). Respondents with a certificate qualification constituted 10.0%, while only 6.7% had postgraduate qualifications. This implies that most business operators possessed moderate to high educational attainment.

Concerning duration in business, over half of the respondents (53.3%) had been in business for 1–3 years, while 36.7% had operated for about 6 years. A smaller proportion (6.7%) had been in business for less than one year, and only 3.3% had operated for more than 7 years. This indicates that most businesses were relatively young.

In terms of the nature of business, wholesale and service businesses each accounted for 33.3% of respondents, followed by retail businesses (23.3%). Manufacturing businesses constituted the smallest proportion (10.0%), suggesting limited engagement in manufacturing activities.

Finally, regarding business location within Kampala District, the majority of respondents operated from Nakawa (50.0%), followed by Rubaga (30.0%). Businesses located in Central Division accounted for 10.0%, while Kawempe (6.7%) and Makindye (3.3%) had the least representation.

4.3: The Descriptive statistics of the study variables.

This section presents the descriptive statistics of the study variables relating to the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) Tax Systems and the Performance of Small and Medium Enterprises (SMEs) in Kampala District, Uganda. The descriptive analysis was conducted to summarize respondents’ views on the constructs of the

study, particularly focusing on the central tendency (mean), dispersion (standard deviation), and the overall response distribution

4.3.1: The Descriptive statistics for system utilization of EFRIS and the performance of SMEs in Kampala District.

This section presents the descriptive statistics on the level of system utilization of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) and the performance of Small and Medium Enterprises (SMEs) in Kampala District. The analysis summarizes respondents’ perceptions regarding the extent of EFRIS usage as well as key performance indicators of SMEs. To achieve this, descriptive statistics, correlation analysis, and regression analysis were employed to establish how the adoption and use of EFRIS influences financial outcomes such as profitability, sales growth, cost management, and compliance efficiency.

Table 4 3: Descriptive Statistics on EFRIS System Utilization and SME Performance in Kampala District (N = 150).

Statement	SD (1)	D (2)	N (3)	A (4)	SA (1)	Total (N)	Mean	Std. Dev
My business actively uses the EFRIS system in daily operations	5	75	30	25	15	150	2.80	1.081
EFRIS is used for generating invoices and receipts regularly	0	30	80	25	15	150	3.17	0.862
The system is integrated with other business software we use	20	35	50	25	20	150	2.93	1.213
The use of EFRIS has become routine in our business operations	0	45	55	30	20	150	3.17	1.006
My business complies with URA reporting requirements due to EFRIS	15	40	55	15	25	150	2.97	1.201
The use of EFRIS has reduced our chances of non-compliance penalties	0	40	60	20	30	150	3.27	1.066
EFRIS helps us meet tax obligations in a timely manner	25	65	25	20	15	150	2.57	1.206

Source (field study 2025)

The findings presented in Table 4.3 indicated a moderate level of EFRIS system utilization among SMEs in Kampala District, with varied implications for business performance and tax compliance. Quantitative results showed that although EFRIS was moderately adopted for routine activities such as invoice and receipt generation (Mean = 3.17) and had become part of regular operations for some businesses (Mean = 3.17), its overall active use in daily business operations remained relatively low (Mean = 2.80). This suggested that while SMEs were aware of EFRIS and used it for specific compliance-related tasks, full integration into daily business processes was still limited. In addition, the integration of EFRIS with other business software recorded a mean score of 2.93, which indicated the presence of operational and technical challenges (Nelson et al., 2023).

With regard to SME performance and compliance outcomes, respondents generally agreed that the use of EFRIS had reduced the likelihood of non-compliance penalties (Mean = 3.27), demonstrating its effectiveness as a regulatory compliance tool. However, lower mean scores were observed for timely fulfillment of tax obligations (Mean = 2.57) and compliance with URA reporting requirements (Mean = 2.97), which implied that EFRIS did not fully simplify tax compliance processes for all SMEs. These results suggested that issues related to system usability, technical capacity, and software integration limited the extent to which EFRIS enhanced business performance.

These quantitative findings were strongly supported by qualitative data obtained from interviews conducted in Kampala Central Division during August 2025 (FA1).

Interviewed business owners reported that although EFRIS had improved transparency and had reduced the incidence of penalties by enforcing compliance, many SMEs experienced challenges associated with system complexity, inadequate technical skills, and unreliable system performance. Respondents further noted that EFRIS was often used primarily to meet regulatory requirements rather than to enhance operational efficiency. On this, the convergence of quantitative and qualitative findings demonstrated that while EFRIS contributed positively to regulatory compliance, its broader impact on SME performance remained constrained by implementation and usability challenges.

4.3.1: Inferential statistical Analysis: Pearson correlation between system utilization of EFRIS and financial performance.

Inferential statistical examine deeper relationship between system utilization of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) and the performance of SMEs in Kampala District. The Analysis directly tests the study’s first hypothesis:

H0₁ There is no significant relationship between system utilization of EFRIS and the performance of SMEs in Kampala District.

Beyond descriptive summaries. Pearson’s correlation (r) was, employed to examine the direction, strength, and significance of the association between the two variables. Pallant, J. (2020).

Table 4 4: Pearson correlation between system utilization of EFRIS and financial performance.

Correlations		
	My business actively uses the EFRIS system in daily operations.	My profits have increased since using the EFRIS system
Pearson Correlation	1	.718**

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My business actively uses the EFRIS system in daily operations.	Sig. (2-tailed)		.000
	N	150	150
My profits have increased since using the EFRIS system	Pearson Correlation	.718**	1
	Sig. (2-tailed)	.000	
	N	150	150
**. Correlation is significant at the 0.01 level (2-tailed). <i>Source (field study 2025)</i>			

Based on the results presented in Table 4.4, the null hypothesis (H_{01}) - which states there is no significant relationship between EFRIS utilization and SME performance in Kampala District must be rejected. The Pearson correlation analysis revealed a statistically significant, strong positive relationship ($r = .718$, $p = .000$) between the active daily use of the EFRIS system and an increase in self-reported profits. This indicated that SMEs which more actively integrate EFRIS into their operations are far more likely to experience improved financial performance, specifically in terms of profit growth.

These quantitative findings were strongly supported by qualitative data from the interviews conducted in Kampala Central Division during August 2025, on (FA2). Business

"We integrated EFRIS at the point of sale from day one. Every coffee, pastry, and meal is invoiced through the system the moment the customer pays. This real-time integration has been revolutionary. It automatically tracks our best-selling items, updates inventory, and generates our tax reports. Financially, it eliminated the daily 'cash gap' we used to have. This allowed us to adjust supplier orders and menu promotions dynamically, directly improving our gross margin."

On business (FA3). *"For us, the key was integrating EFRIS into our supply chain and production cycle. We use it to invoice bulk orders to supermarkets as soon as they are dispatched from our bakery. More importantly, we issue receipts for every flour, sugar, and butter purchase. This created a complete digital trail. By the end of the month, the system clearly shows the cost versus revenue for each product line. We discovered our elaborate wedding cakes, while high-value, had a lower profit margin than our daily bread batches. This helped us reprice strategically and focus on production, leading to a 15% increase in net profit within two quarters."*

Therefore, the data provide compelling evidence against the null hypothesis, confirming instead that a meaningful and positive association exists between system utilization and SME performance within the studied sample.

4.3.3: inferential statistical Analysis: Regression Analysis between system utilization of EFRIS and the financial performance of SMEs in Kampala District.

This section presents the regression analysis conducted to examine the predictive effect of Electronic Fiscal Receipting and Invoicing Solution (EFRIS) tax system and the performance of Small and Medium Enterprises (SMEs) in Kampala District, Uganda. I.e. a dependent variable and one or more independent variables and how strongly and in what direction the independent variable(s) influence the dependent variable.

The Regression analysis aimed to determine the extent to which the use and adoption of EFRIS influence key aspects of SME performance, in particular cost of tax compliance, system utilization, profitability, and operational efficiency. This analysis provides more robust test of the relationships postulated in the Hypothesis 1 ($H0_1$), *there is no significant relationship between system utilization of EFRIS as the independent variables and the financial performance (FP) of SMEs in Kampala District.*

Multiple Linear Regression was deemed appropriate in analyzing the relationship between system utilization of EFRIS (Electronic Federal Records Information System) as independent variables and the financial performance (FP) of SMEs in Kampala District because it allows for the quantification of the impact of multiple independent variables on a dependent variable. This statistical method helped in understanding how changes in EFRIS system utilization (e.g., frequency of use, accessibility, efficiency) are associated with changes in financial performance metrics (e.g., profitability, revenue, and cost efficiency).

This approach complement Pearson correlation analysis by not only assessing the relationship but enabling the identification of significant predictors of financial performance, helping stakeholders make data-driven decisions to optimize EFRIS usage for better financial outcomes.

Table 4 5: Model Summary for system utilization of EFRIS and the financial performance of SMEs in Kampala District.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.849 ^a	.721	.707	.534	.721	52.300	7	14	.000	2.369

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Source: primary data 2025

The table presents the results of the regression analysis examining the effect of EFRIS system utilization on SME profitability. Based on the results presented in Table 4.5, the null hypothesis (H_{01}) - which states there is no significant relationship between EFRIS utilization and SME performance in Kampala District must be rejected. The correlation coefficient (R) of 0.849 indicates a strong positive relationship between EFRIS utilization variables and the increase in profits among SMEs.

The R Square value of 0.721 shows that approximately 72.1% of the variation in SME profits is explained by the combined EFRIS utilization factors included in the model. After adjusting for the number of predictors, the Adjusted R Square of 0.707 indicates that 70.7% of the variation in profitability is still explained by the model, confirming its strong explanatory power. The standard error of the estimate of 0.534 suggests that the model provides reasonably accurate predictions of profit changes. The F-change statistic of 52.300 with a significance value of 0.000 indicates that the regression model is statistically significant. In addition, the Durbin–Watson value of 2.369 suggests that there is no serious autocorrelation problem in the residuals.

Table 4 6: ANOVAa for system utilization of EFRIS and the financial performance of SMEs

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	104.356	7	14.908	52.300	.000 ^b
	Residual	40.477	142	.285		
	Total	144.833	149			

Source: field data 2025

The ANOVA results show that the regression model examining the effect of EFRIS system utilization on SME profitability is statistically significant. The regression sum of squares of 104.356 compared to the total sum of squares of 144.833 indicates that a large proportion of the variation in SME profits is explained by EFRIS utilization factors.

The model produced an F-value of 52.300 with a significance level of $p = 0.000$, which is well below the 0.05 threshold. *This confirms that the combined EFRIS utilization variables significantly predict changes in SME profits and that the results are not due to chance.* The relatively low residual mean square of 0.285 further indicates that the unexplained variation is minimal.

On that note therefore, these results are important because they demonstrate that EFRIS system utilization has a meaningful and statistically significant influence on the profitability of SMEs in Kampala District.

Table 4 7: Regression Coefficients for EFRIS System Utilization Predicting Financial Performance of SMEs.

Predictor Variable	B	Std. Error	Beta (β)	t-value	Sig. (p)
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Active use of EFRIS in daily operations	0.367	0.077	0.402	4.754	.000
Use of EFRIS for invoices and receipts	0.707	0.089	0.618	7.978	.000
Integration of EFRIS with other business software	0.172	0.062	0.211	2.779	.006
EFRIS has become routine in business operations	-0.097	0.097	-0.099	-1.000	.319
Compliance with URA reporting due to EFRIS	-0.229	0.085	-0.279	-2.710	.008
Reduced chances of non-compliance penalties	0.386	0.118	0.417	3.277	.001
Timely meeting of tax obligations using EFRIS	-0.333	0.065	-0.408	-5.130	.000

Source: Field data (2025)

The coefficients table show which aspects of EFRIS utilization significantly influence SME profitability. Regular use of EFRIS for generating invoices and receipts is the strongest positive predictor of profit increase ($\beta = 0.618, p < 0.000$), indicating that SMEs that consistently issue electronic invoices and receipts experience better profit outcomes. Active daily use of EFRIS in business operations also has a significant positive effect on profits ($\beta = 0.402, p < 0.001$), highlighting the importance of integrating EFRIS into everyday activities. In addition, integration of EFRIS with other business software has a positive and significant effect ($\beta = 0.211, p = 0.006$), suggesting that technological integration enhances the profitability benefits of the system. Reducing chances of non-compliance penalties through EFRIS also significantly improves profits ($\beta = 0.417, p = 0.001$), as it lowers financial losses associated with penalties.

These quantitative findings were strongly supported by qualitative data from the interviews conducted in Kampala Central Division during September 2025, on Quality Supermarket

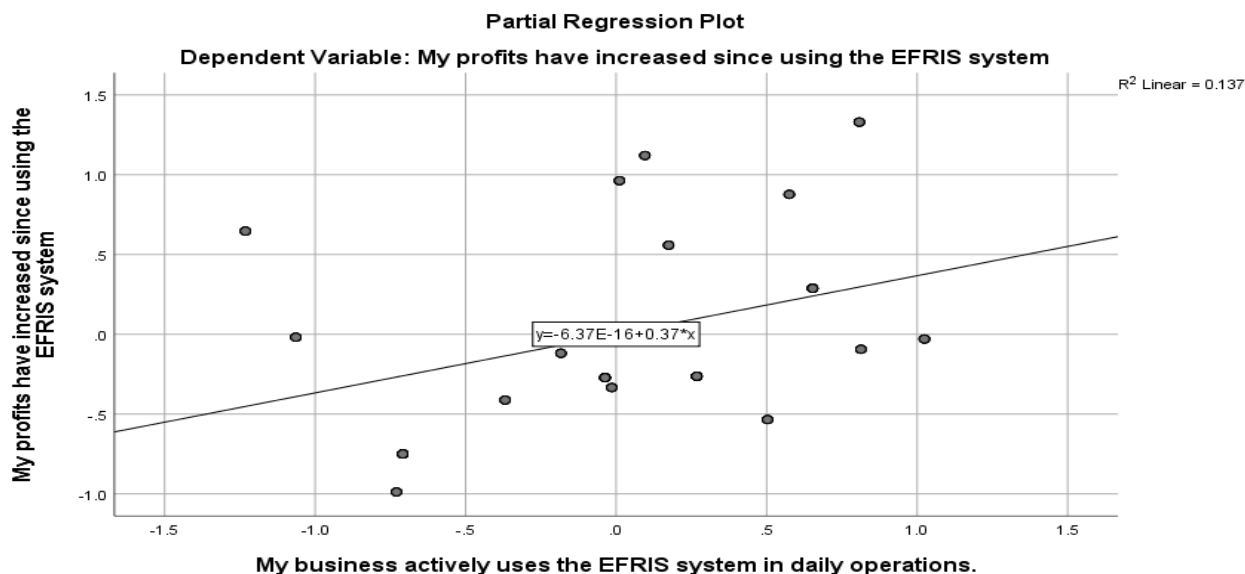
Hypothetical Illustrative Quotes (Manager at Quality Supermarket):

"Before EFRIS, our stock management was a guessing game. We had discrepancies between what the sales team sold, what the store shelves showed, and what our manual records stated. Since integrating EFRIS directly with our point-of-sale (POS) systems, every sale automatically generates an invoice and updates inventory in real-time. This was a game-changer. We now have accurate, real-time data on which products are fast-moving and which are stagnant. This allowed us to reduce overstocking on slow items by 30% and eliminate frequent stock-outs on high-demand goods. Financially, this directly cut our holding costs and increased sales turnover. Furthermore, automating our purchase-to-sale trail has drastically reduced time spent on monthly tax filing and eliminated the risk of non-compliance penalties. The system pays for itself by optimizing our working capital and preventing lost sales."

Conversely, routine use of EFRIS alone does not have a significant effect on profits ($p = 0.319$), indicating that mere habitual use without effective application may not improve performance. Compliance with URA reporting requirements due to EFRIS shows a significant negative relationship with profits ($\beta = -0.279, p = 0.008$), suggesting that compliance-related costs may outweigh short-term profit gains for some SMEs. Similarly, timely tax payment

through EFRIS has a significant negative effect on profits ($\beta = -0.408, p < 0.001$), possibly due to increased cash flow pressure.

figure1. 2: Shows the partial Regression Plot.



Basing on the figure above, there is positive relationship between the two variable. (My profits have increased since using the EFRIS tax system and my business actively uses the EFRIS system in daily operation), this means that, there is an increase in profits, as business use EFRIS in the daily operation of the business. The figure also exhibit homoscedasticity, which means that data is constant.

4.4:1 The Descriptive statistics for effect of Perceived Ease of use and System Accessibility on SMEs’ Operational efficiency.

This section presents the descriptive statistics examining the effect of perceived ease of use and system accessibility of the Electronic Fiscal Receipting and Invoicing Solution (EFRIS) on the operational efficiency of Small and Medium Enterprises (SMEs) in Kampala District. The analysis focuses on SMEs’ perceptions regarding how easy the system is to use and how accessible it is in terms of internet availability, system reliability, and device compatibility, and how these factors influence daily business operations. (Ahimbisibwe and Nangoli (2023)

Descriptive statistics are used to summarize respondents’ views and identify general patterns in system usability, accessibility, and operational efficiency. The findings provide an initial understanding of the extent to which ease of use and accessibility support or constrain SME operational efficiency, forming a basis for subsequent inferential analysis.

Table 4 8: Descriptive Statistics for the Effect of Perceived Ease of Use and System Accessibility on SMEs’ Operational Efficiency (N = 150)

Statement	SD (1)	D (2)	N (3)	A (4)	SA (5)	Total (N)	Mean	Std. Dev
It is easy to learn how to use the EFRIS system	20	45	50	15	20	150	2.80	1.198
Navigating the system interface is user-friendly	5	60	45	30	10	150	2.87	0.994
The process of generating invoices is straightforward	5	45	40	35	25	150	3.20	1.141
We rarely need technical support to use EFRIS	10	50	55	20	15	150	2.87	1.060
My profits have increased since using the EFRIS system	0	60	50	25	15	150	2.97	0.986

Source: Field data (2025)

The findings presented in Table 4.8 indicated that the perceived ease of use and system accessibility of EFRIS had a moderate influence on the operational efficiency of SMEs in Kampala District. With regard to the objective of assessing system learnability and usability, respondents reported moderate perceptions concerning the ease of learning the EFRIS system with a (Mean = 2.80) and the user-friendliness of the system interface with a (Mean = 2.87). These results suggested that a considerable number of SMEs experienced difficulties in understanding and navigating the system, which limited its effective use in daily operations.

However, the process of generating invoices was rated relatively higher with a (Mean = 3.20), indicating that this particular function was perceived as more straightforward compared to other system features and enabled to generate invoices during the transactions process.

In terms of system accessibility and technical support, respondents moderately disagreed that they rarely required technical assistance to use EFRIS, statistically with a (Mean = 2.87), implying continued dependence on external support, which potentially disrupted workflow efficiency.

Regarding operational efficiency, perceived improvements in business performance, as reflected by increased profits, were modest (Mean = 2.97), suggesting that the overall usability and accessibility of EFRIS had not yet translated into substantial efficiency gains for many SMEs.

These quantitative findings were strongly supported by qualitative data from interviews conducted in Kampala Central Division during August 2025, where FA4, FA5, businesses respondents reported that;

“Although EFRIS facilitated compliance and invoice generation, challenges related to system complexity, navigation difficulties, and frequent need for technical support limited its contribution to operational efficiency and profitability.”

The convergence of quantitative and qualitative evidence therefore demonstrated that usability and accessibility constraints continued to hinder the effective utilization of EFRIS among SMEs in Kampala District.

4.4.2: inferential statistical Analysis: Pearson correlation between perceived ease of use and system accessibility on SMEs’ operational efficiency.

This section presents the Pearson correlation analysis used to examine the relationship between perceived ease of use, system accessibility, and the operational efficiency of SMEs in Kampala District. The analysis determines the direction, strength, and statistical significance of the association between these system-related factors and SMEs’ operational efficiency, providing empirical evidence on how usability and accessibility influence business operations. (Pallant (2020) This Analysis directly tests the second study hypothesis.

H0₂: There is no significant relationship between system ease of use of EFRIS and the performance of SMEs in Kampala District.

Table 4 9: Pearson correlation analysis between Perceived Ease of use on SMEs’ Operational efficiency.

Correlations			
		My profits have increased since using the EFRIS system	It is easy to learn how to use the EFRIS system.
My profits have increased since using the EFRIS system	Pearson Correlation	1	.449**
	Sig. (2-tailed)		.000
	N	150	150
It is easy to learn how to use the EFRIS system.	Pearson Correlation	.449**	1
	Sig. (2-tailed)	.000	
	N	150	150

** . Correlation is significant at the 0.01 level (2-tailed). *Source: field data: 2025*

The Pearson correlation table reveals a statistically significant and positive relationship between the perceived ease of learning the EFRIS system and reported profit growth among SMEs. In relation to Hypothesis 2(*H0₂*), With a correlation coefficient (*r*) of .449 and a *p*-value of .000 (highly significant at the 0.01 level), the analysis indicates that as businesses find EFRIS easier to learn, they are more likely to experience an increase in profits. This moderate positive correlation, derived from a sample of 150 respondents, suggests that user-friendliness and learnability of the system are meaningful factors associated with its financial benefits.

While the relationship is not overwhelmingly strong, it underscores that ease of adoption can contribute to operational effectiveness, which in turn supports profitability. Thus, the findings imply that efforts to enhance the system's usability and reduce learning barriers could help amplify its positive impact on SME financial performance.

4.4.2: Inferential statistical Analysis: Regression Analysis between perceived Ease of use and system accessibility on SMEs’ operational efficiency.

Regression Analysis between Perceived Ease of Use and System Accessibility on SMEs’ Operational Efficiency," transitions from describing the data to formally testing a predictive relationship. It employs regression analysis of a core inferential statistical technique of determining the extent to which perceived ease of use and system accessibility jointly influence and predict the level of operational efficiency within SMEs. The analysis quantifies the strength and significance of each factor’s impact, revealing which variable is a stronger driver of efficiency gains and how much of the variation in efficiency can be explained by these two usability factors together. Ultimately, this section provides evidence-based insights into whether improving the user-friendliness and reliability of the EFRIS system leads to measurable improvements in business operations.

Table 4 10: model summary for perceived Ease of use and system accessibility on SMEs’ operational efficiency.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Change	F Change	df1	df2	Sig. F Change	
1	.849 ^a	.721	.714	.687	.721	93.882	4	145	.000	2.221
a. Predictors: (Constant), Zscore: We rarely need technical support to use EFRIS, Zscore: It is easy to learn how to use the EFRIS system., Zscore: The process of generating invoices is straightforward, Zscore: Navigating the system interface is user-friendly b. Dependent Variable: The business has experienced better operation efficiency and stable revenue growth										

Source: field data 2025

Table 4 11: ANOVAa for perceived Ease of use and system accessibility on SMEs’ operational efficiency.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	177.473	4	44.368	93.882	.000 ^b
	Residual	68.527	145	.473		
	Total	246.000	149			

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a. Dependent Variable: The business has experienced better operation efficiency and stable revenue growth
b. Predictors: (Constant), Zscore: We rarely need technical support to use EFRIS, Zscore: It is easy to learn how to use the EFRIS system., Zscore: The process of generating invoices is straightforward, Zscore: Navigating the system interface is user-friendly

Source: field data 2025

Table 4 12: Regression Coefficients for Perceived Ease of Use and System Accessibility Predicting SMEs’ Operational Efficiency.

Predictor Variable	B	Std. Error	Beta (β)	t-value	Sig. (p)
Ease of learning how to use EFRIS	0.213	0.067	0.166	3.196	.002
User-friendly system interface	0.414	0.091	0.322	4.530	.000
Straightforward invoice generation process	0.260	0.080	0.202	3.230	.002
Rare need for technical support	0.411	0.084	0.320	4.871	.000

Source: Field data (2025)

The regression analysis presented in Tables 4.10, 4.11, and 4.12 provides compelling evidence that the perceived ease of use and system accessibility of EFRIS significantly predict improvements in operational efficiency and revenue stability for SMEs.

The Model Summary in Table 4.10 reveals an exceptionally strong relationship, with a multiple correlation coefficient (R) of 0.849, indicating a very strong positive link between the combined ease-of-use factors and business efficiency. More importantly, the R Square value of 0.721 demonstrates that these four factors ease of learning, user-friendly navigation, straightforward invoice generation, and minimal need for technical support, collectively explain approximately 72.1% of the variance in operational efficiency outcomes. This high explanatory power is statistically validated by the significant F-change (Sig. F Change = .000) and further supported by the Adjusted R Square of 0.714, which confirms the model's robustness after accounting for the number of predictors. The Durbin-Watson statistic of 2.221 suggests that the independence of observations assumption is satisfied, adding to the reliability of the findings.

The ANOVA results in Table 4.11 confirm the overall statistical significance of the regression model. With an F-statistic of 93.882 and a significance level of .000, which confidently reject the null hypothesis that the predictors have no effect on operational efficiency. This indicates that the regression model incorporating these four ease-of-use dimensions provides a substantially better prediction of efficiency outcomes than simply using the mean value. The substantial mean square regression relative to the residual further emphasizes that the model explains a meaningful portion of the variance in the dependent variable, solidifying the conclusion that perceived ease of use and accessibility are critically important for SME performance. The regression sum of squares (177.473) is much higher than the residual sum of squares (68.527), indicating that a large portion of the variation in operational efficiency.

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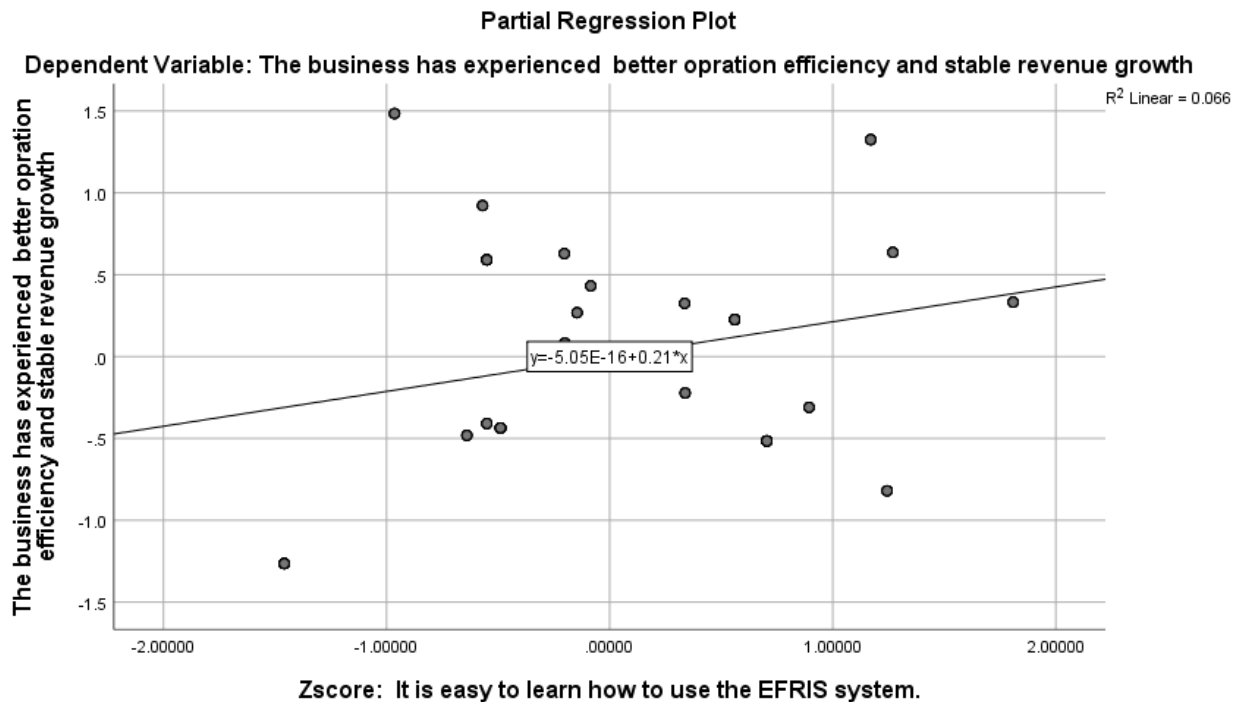
Published on: 30.03.2026

The regression results presented in Table 4.12 addressed the objective of examining the effect of perceived ease of use and system accessibility of EFRIS on SMEs' operational efficiency in Kampala District. The findings indicated that all the predictor variables had a statistically significant positive effect on operational efficiency. Specifically, the ease of learning how to use the EFRIS system significantly predicted operational efficiency ($\beta = 0.166$, $p = .002$), suggesting that SMEs that perceived the system as easier to learn experienced better operational outcomes. Similarly, the user-friendliness of the system interface had a strong and significant influence on operational efficiency ($\beta = 0.322$, $p < .001$), indicating that intuitive navigation enhanced workflow efficiency and revenue stability.

Furthermore, the straightforwardness of the invoice generation process significantly contributed to operational efficiency ($\beta = 0.202$, $p = .002$), implying that simplified transaction processing reduced operational delays. The rare need for technical support also emerged as a strong predictor of operational efficiency ($\beta = 0.320$, $p < .001$), suggesting that systems requiring minimal external assistance allowed SMEs to operate more efficiently and consistently. Overall, the regression results demonstrated that perceived ease of use and system accessibility were critical determinants of operational efficiency and stable revenue growth among SMEs. These quantitative findings were strongly supported by qualitative data from the interviews conducted in Kampala lubaga division during August 2025, *FA6 Business*

“From our experience, operational efficiency improved mostly when the EFRIS system became easy to navigate. Once the interface was clear, staff processed transactions faster with fewer errors. We also noticed that when the system required minimal technical support, our daily operations ran smoothly without interruptions. In addition, the simple invoice generation process saved time, and new staff were able to learn how to use EFRIS quickly. Overall, ease of use and system reliability have been key factors in improving our operational efficiency.”
(*FA6 Business*).

figure1 3: Shows the partial Regression Plot.



Basing on the figure above, there is positive relationship between the two variable. (Ease to learn how to use the EFRIS system and operation efficiency of business), this means that, there is an increase in profits, as business learn how to use EFRIS system in the daily operation of the business. The figure also exhibit homoscedasticity, which means that data is constant.

4.5.1: Descriptive statistics of assess the level of awareness and adoption of the EFRIS tax system among small and medium enterprise (SME) in Kampala District.

This section presents descriptive statistics assessing the level of awareness and adoption of the EFRIS tax system among Small and Medium Enterprises (SMEs) in Kampala District. The analysis summarizes SMEs’ knowledge of EFRIS requirements, understanding of system benefits, and the extent to which the system has been adopted in daily business operations, providing an overview of current awareness and adoption levels.

Table 4 13: Descriptive Statistics on Respondents’ Awareness and Understanding of the EFRIS System (N = 150)

Statement	SD	D	N	A	SA	Total	Mean	Std.
	(1)	(2)	(3)	(4)	(5)	(N)		Dev

I am aware of the features and functions of the EFRIS system	15	50	50	25	10	150	2.77	1.058
My staff have received sufficient training or information about EFRIS	15	55	55	15	10	150	2.67	1.014
The Uganda Revenue Authority has promoted awareness of the EFRIS system effectively	5	40	70	25	10	150	2.97	0.915
I understand the benefits of using the EFRIS system in my business	20	70	50	0	10	150	2.40	0.955

Source: Field data (2025)

The descriptive statistics in the table present respondents’ levels of awareness and understanding of the EFRIS tax system among SMEs in Kampala District. The results revealed that awareness of the features and functions of EFRIS recorded a mean score of 2.77, indicating a moderate level of awareness, though many respondents are still uncertain about the system’s full capabilities. Staff training and access to information about EFRIS recorded a slightly lower mean of 2.67, suggesting that a significant number of SMEs feel their employees have not received adequate training to effectively use the system. These quantitative findings were strongly supported by qualitative data from the interviews conducted in Kampala during August 2025, at FA7 Business.

“We are generally aware of what EFRIS does, especially for invoicing and tax reporting, but many of its advanced features are still not fully understood by our staff. Most of the knowledge we have is self-taught. To address this, we regularly organize internal refresher sessions and assign one trained staff member to support others during daily operations.” Staff, FA7.

Similarly, the manager of FA8. Restaurant emphasized gaps in staff training and information flow:

“Although we know EFRIS is mandatory, not all staff clearly understand how the system works or its full benefits. Training from URA has been limited, and staff turnover makes it harder to maintain consistent knowledge. To manage this, we provide on-the-job training and use simple internal guides to help staff learn how to use EFRIS correctly.” Manager, of FA8. Restaurant

Perceptions regarding URA’s efforts to promote awareness of EFRIS recorded a mean of 2.97, which is close to the neutral point, indicating mixed views on the effectiveness of URA’s awareness campaigns.

“URA has conducted several EFRIS sensitization activities, including workshops, media campaigns, and on-site support visits. However, reaching all SMEs consistently has been a challenge due to their large numbers,

high staff turnover, and varying levels of digital literacy. As a result, awareness levels differ across businesses.”

URA Officer, in tax Department A1

Based on the *Documentary Review*: “Despite ongoing sensitization and training initiatives, uptake and understanding of EFRIS among SMEs remain uneven, particularly in urban informal sectors. Limited follow-up training and inconsistent access to digital infrastructure continue to affect the effectiveness of awareness campaigns.” *Uganda Revenue Authority, EFRIS Implementation Report (2023)*

Understanding of the benefits of using EFRIS recorded the lowest mean score of 2.40, reflected a low to moderate level of understanding among SMEs about how the system can benefit their businesses. The standard deviations across the variables were moderate, showing some variation in awareness and understanding among respondents.

“We use EFRIS because the URA says we must. It’s for the tax. We scan and it makes the receipt. But to be honest, I’m not sure what else it does for us. My manager handles the reports. I’ve heard it might help with stock, but we still do our manual counts. It’s just another step at the checkout.” Cashier/Sales Associate of FA9. Supermarket

Based on the *Documentary Review*: “While most SMEs are aware of EFRIS as a mandatory tax system, understanding of its broader business benefits such as improved record management, efficiency, and decision-making remains limited. Differences in training, exposure, and digital skills contribute to varying levels of awareness and understanding among SMEs.” *Uganda Revenue Authority, Taxpayer Education and EFRIS Awareness Report (2023)*

On that note therefore, the findings suggest that while basic awareness of EFRIS exists among SMEs, gaps remain in staff training and understanding of system benefits, which may hinder full adoption of the EFRIS system.

4.5.2: Inferential statistical Analysis: Pearson correlation between the level of awareness and compliance cost.

This section presents the Pearson correlation analysis used to examine the relationship between the level of awareness of the EFRIS tax system and compliance costs among SMEs in Kampala District. This Analysis directly tests the third study hypothesis: *H03: There is no significant relationship between system awareness of EFRIS and the performance of SMEs in Kampala District.*

The analysis determined the direction, strength, and statistical significance of the association between awareness and compliance costs, providing empirical evidence on how awareness levels influence the cost of tax compliance.

Table 4 14: Pearson correlation between the level of awareness and compliance cost.

Correlations		
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		I am aware of the features and functions of the EFRIS system	My cost of tax compliance has reduced with EFRIS
I am aware of the features and functions of the EFRIS system	Pearson Correlation	1	.628**
	Sig. (2-tailed)		.000
	N	150	150
My cost of tax compliance has reduced with EFRIS	Pearson Correlation	.628**	1
	Sig. (2-tailed)	.000	
	N	150	150
** . Correlation is significant at the 0.01 level (2-tailed). <i>Source; field data, 2025</i>			

The Pearson correlation results examining the relationship between system awareness of EFRIS and compliance cost among SMEs in Kampala District. The findings show a strong positive correlation between awareness of the features and functions of the EFRIS system and the reduction in tax compliance costs ($r = 0.628$). This indicates that SMEs with higher awareness of EFRIS are more likely to experience lower costs of tax compliance. The relationship was statistically significant at the 1% level ($p = 0.000$).

The analysis based on 150 observations, which enhances the reliability of the results. Given the strength and significance of the correlation, the null hypothesis (H_0), which states that there is no significant relationship between system awareness of EFRIS and SME performance, was rejected. These results suggested that improving awareness of EFRIS among SMEs can significantly contribute to reducing compliance costs, thereby positively influencing SME performance in Kampala District. These quantitative findings were strongly complemented by qualitative data from the interviews conducted in Kampala, Kawempe division during August 2025, at FA10.

“As our awareness of the EFRIS system, we noticed a clear reduction in our tax compliance costs. Understanding the system features, helped us avoid errors, reduce reliance on external tax consultants, and minimize penalties caused by incorrect reporting. We are now able to submit returns on time and manage records internally, which has lowered both financial and administrative costs.” Accounting Manager, of FA10.

Based on the Documentary Review: “Increased taxpayer awareness of EFRIS functionalities has been associated with reduced compliance costs among SMEs. Businesses that understand system features are able to automate reporting processes, reduce manual documentation, and minimize errors that often result in penalties and additional compliance expenses.” *Uganda Revenue Authority, EFRIS Compliance and Cost Assessment Report (2023)*

These qualitative findings align with the Pearson correlation results ($r = 0.628, p = 0.000$), confirming that higher awareness of EFRIS significantly contributes to reduced tax compliance costs. Improved system understanding enables SMEs to operate more efficiently, reduce penalties, and lower administrative expenses, thereby enhancing total SME performance in Kampala District.

4.5.3: Inferential statistical Analysis: Regression Analysis for the level of awareness and compliance cost.

This section presented the regression analysis conducted to examine the effect of system awareness of the EFRIS tax system on compliance cost among SMEs in Kampala District. The analysis evaluates whether variations in awareness significantly predict changes in compliance costs, thereby testing the null hypothesis (H_0) which states that there is no significant relationship between system awareness of EFRIS and the performance of SMEs in Kampala District.

Table 4 15: Model summary for the level of awareness and compliance cost.

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.628 ^a	.394	.390	.935	.394	96.319	1	148	.000	1.396
a. Predictors: (Constant), I am aware of the features and functions of the EFRIS system										
b. Dependent Variable: My cost of tax compliance has reduced with EFRIS										

Source: field study 2025

Table 4 16: ANOVAa for the level of awareness and compliance cost.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.169	1	84.169	96.319	.000 ^b
	Residual	129.331	148	.874		
	Total	213.500	149			
a. Dependent Variable: My cost of tax compliance has reduced with EFRIS						
b. Predictors: (Constant), I am aware of the features and functions of the EFRIS system						

Source: Field data 2025

Table 4 17: Regression Coefficientsa for the level of awareness and compliance cost.

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Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.135	.214		5.296	.000	.711	1.558		
	I am aware of the features and functions of the EFRIS system	.710	.072	.628	9.814	.000	.567	.853	1.000	1.000

a. Dependent Variable: My cost of tax compliance has reduced with EFRIS

Source: filed data 2025

The model summary (Table 4.13) showed system awareness of EFRIS has a strong relationship with compliance cost reduction among SMEs in Kampala District. The correlation coefficient ($R = 0.628$) indicates a strong positive association between awareness of EFRIS features and reduced tax compliance costs. The coefficient of determination ($R^2 = 0.394$) implies that approximately 39.4% of the variation in compliance cost reduction is explained by SMEs’ awareness of the EFRIS system. The adjusted R^2 (0.390) confirms that the model remains reliable after adjusting for sample size. The model is statistically significant ($F = 96.319, p = 0.000$)

The ANOVA results (Table 4.14) further confirm the significance of the regression model. The regression sum of squares (84.169) is substantially higher than the residual sum of squares (129.331), and the computed F-statistic (96.319) is statistically significant at $p = 0.000$. This indicates that awareness of the features and functions of EFRIS significantly predicts reductions in tax compliance costs among SMEs.

The regression coefficients (Table 4.15) show that awareness of the EFRIS system has a positive and statistically significant effect on compliance cost reduction. The unstandardized coefficient ($B = 0.710, p = 0.000$) means that a one-unit increase in awareness of EFRIS features leads to a 0.710-unit reduction in tax compliance costs. The standardized beta ($\beta = 0.628$) confirms a strong effect size. The confidence interval (0.567 to 0.853) does not include zero, further supporting the significance of the predictor. The collinearity statistics (Tolerance = 1.000, VIF = 1.000) indicate no multicollinearity concerns.

On that note therefore, the regression results clearly show that increased awareness of the EFRIS system significantly reduces tax compliance costs among SMEs. Therefore, the null hypothesis (H_0) is rejected, and the findings suggest

that improving awareness of EFRIS features and functions can substantially enhance SME performance by lowering compliance costs in Kampala District.

These quantitative findings were strongly complemented by qualitative data from the interviews conducted in Kampala, as it was quoted by FA11. Pharmacy

“Once we fully understood the EFRIS features such as electronic invoicing, automatic tax calculations, real-time reporting to URA, and digital record storage, our compliance costs reduced significantly. We invested in internal awareness sessions where staff were trained on how to generate fiscal receipts correctly, submit returns on time, and reconcile sales reports. This reduced errors, penalties, and the need to hire external consultants, which lowered our overall tax compliance costs.” (FA11. Pharmacy)

Basing on Documentary / Policy Review “Enhancing taxpayer awareness of EFRIS functionalities, including e-invoicing, real-time transmission of sales data, automated tax computation, and digital record keeping, has been shown to reduce compliance costs by minimizing manual processes, errors, and enforcement-related penalties among SMEs.” *Uganda Revenue Authority, EFRIS Taxpayer Awareness and Compliance Policy Brief (2023).*

These qualitative insights aligned with the regression findings that 39.4% of the reduction in compliance costs is explained by awareness of EFRIS features.

CHAPTER FIVE

“SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS “

5.0 Introduction.

This chapter presents a summary of the key findings of the study, followed by a discussion of the results in relation to the study objectives and existing literature. It further draws conclusions based on the empirical evidence and provides practical recommendations aimed at improving the utilization of the EFRIS tax system and enhancing the performance of Small and Medium Enterprises (SMEs) in Kampala District. The chapter also highlights areas for policy intervention and suggests directions for future research.

5.1: Summary of the Findings.

This section presents a concise summary of the major findings of the study based on the research objectives and hypotheses. It highlights key results on the utilization of the EFRIS tax system, perceived ease of use and system accessibility, levels of awareness and adoption, and their effects on compliance costs and the performance of SMEs in Kampala District.

5.1.1: Determine the relationship between EFRIS system utilization and the financial performance of SMEs in Kampala district.

The study found that the level of EFRIS system utilization among SMEs in Kampala District is generally moderate and largely compliance-oriented rather than fully operational. Descriptive results showed that while many SMEs regularly use EFRIS to generate invoices and receipts (Mean = 3.17), active daily use of the system in broader business operations remains low (Mean = 2.80). Integration of EFRIS with other business software was also limited (Mean = 2.93), indicating that the system is not yet fully embedded into routine business processes for most SMEs. SMEs mainly perceive EFRIS as a tool for meeting URA requirements rather than a system for improving operational efficiency.

Despite this moderate utilization, inferential analysis revealed strong and meaningful relationships between EFRIS usage and SME performance. Pearson correlation results showed a strong positive and statistically significant relationship between active use of EFRIS and SME profitability ($r = 0.718, p = 0.000$). *This indicated that SMEs that integrate EFRIS more actively into their operations are more likely to experience improved financial performance. These findings were supported by qualitative evidence from businesses such as FA2 & FA3 business, which reported improved revenue tracking, cost control, and profit margins after integrating EFRIS into their sales and production processes.*

Regression analysis further confirmed that EFRIS utilization significantly predicts SME financial performance. The model explained 72.1% of the variation in SME profits ($R^2 = 0.721$), demonstrating strong explanatory power. Key predictors of profitability included regular use of EFRIS for invoicing and receipting, active daily use of the system, integration with other business software, and reduced non-compliance penalties. However, routine use without effective integration showed no significant effect on profits, while compliance-related factors such as timely tax payments and reporting requirements had a negative short-term impact on profitability, likely due to cash flow pressures.

On that note therefore, the findings showed that while EFRIS adoption among SMEs is still moderate and compliance-driven, effective and integrated utilization of the system has a strong positive influence on SME profitability and performance. The results underscore the importance of moving beyond basic compliance toward deeper operational integration of EFRIS to fully realize its business performance benefits. That is to say businesses should recognize how crucial the system is to their business

5.1.2: Examine the Effect of Perceived Ease of use and System Accessibility on SMEs' Operational Efficiency.

The findings show that the perceived ease of use and system accessibility of EFRIS play a critical role in influencing the operational efficiency and performance of SMEs in Kampala District. Descriptive statistics indicate that SMEs generally find the *process of generating invoices through EFRIS relatively easy* (Mean = 3.20), suggesting that this function of the system is well understood and widely accepted. However, *learning how to use the system* recorded a lower mean score (Mean = 2.80), indicating that many SMEs experience challenges during the initial adoption and training phase. Similarly, the need for technical support (Mean = 2.87) and user-friendliness of the system interface (Mean = 2.87) reflect moderate ease of use, with persistent usability and accessibility challenges, particularly related to system reliability and internet connectivity.

Inferential analysis further revealed a statistically significant positive relationship between ease of learning EFRIS and SME performance. The Pearson correlation analysis showed a moderate positive correlation ($r = 0.449$, $p = 0.000$), indicating that SMEs that find EFRIS easier to learn are more likely to experience improved profitability and operational efficiency. This finding led to the rejection of the null hypothesis (H_0), confirming that system ease of use significantly influences SME performance.

Regression analysis provided stronger evidence of this relationship. The model demonstrated a very strong explanatory power ($R^2 = 0.721$), showing that perceived ease of learning, user-friendly navigation, straightforward invoice generation, and minimal need for technical support collectively explain over 72% of the variation in operational efficiency and revenue stability among SMEs. Among these factors, user-friendly system navigation

emerged as the strongest predictor of operational efficiency, followed closely by reduced need for technical support, while ease of invoice generation and learning the system also had significant positive effects.

Qualitative findings from FA3, FA4, & FA6, business strongly supported the quantitative results. Managers emphasized that while EFRIS improves transaction speed and compliance, operational efficiency is maximized only when the system is easy to navigate, reliable, and supported by adequate staff training.

On that note therefore, the findings demonstrated that improving the usability and accessibility of EFRIS is essential for enhancing SME operational efficiency and performance, highlighting the importance of user-centered system design, reliable infrastructure, and continuous capacity building and understanding the different features and functions of the system

5.1.3: Assessing the level of awareness and adoption of the EFRIS tax system among small and medium enterprise (SME) in Kampala District.

The findings revealed the level of awareness and adoption of the EFRIS tax system among SMEs in Kampala District is moderate but uneven, with notable gaps in staff training and understanding of the system's broader benefits. Descriptive statistics show that awareness of EFRIS features and functions recorded a mean score of 2.77, indicating that while most SMEs are generally aware of the system, many lack comprehensive knowledge of its full capabilities. Staff training and access to EFRIS-related information recorded a slightly lower mean of 2.67, highlighting insufficient training and limited information dissemination within many SMEs.

Qualitative data evidenced from FA7 business & FA8, Restaurant reinforced these findings, showing that much of the knowledge about EFRIS is acquired informally or through internal initiatives rather than structured external training. Managers reported challenges related to staff turnover, limited URA-led training, and inconsistent information flow, which hinder consistent adoption and effective use of the system. Perceptions of URA's awareness campaigns were mixed, as reflected by a mean score of 2.97, with both interviews and documentary evidence confirming that although URA has conducted sensitization activities, coverage and follow-up remain inadequate, particularly for SMEs in the informal and urban sectors.

Understanding of the benefits of EFRIS recorded the lowest mean score of 2.40, indicating that many SMEs perceive EFRIS primarily as a compliance tool rather than a system that adds operational or strategic value. This was strongly supported by qualitative accounts from frontline staff, such as those at FA9. Supermarket, who viewed EFRIS as an additional mandatory step rather than a business-enhancing system. Documentary reviews further confirmed that limited digital skills and uneven exposure contribute to varying levels of awareness and understanding among SMEs.

Inferential analysis demonstrated that awareness of EFRIS has a strong and statistically significant effect on SME performance through reduced compliance costs. Pearson correlation analysis revealed a strong positive relationship ($r = 0.628$, $p = 0.000$) between awareness of EFRIS features and reduced tax compliance costs, leading to the rejection of the null hypothesis (H_0). Regression analysis reinforced this finding, showing that awareness of EFRIS explains 39.4% of the variation in compliance cost reduction ($R^2 = 0.394$). The regression coefficient ($\beta = 0.628$, $p = 0.000$) confirmed that increased awareness significantly lowers compliance costs by reducing errors, penalties, reliance on external consultants, and administrative burden.

These quantitative results were strongly complemented by qualitative evidence from FA10 & FA11 business, where managers reported tangible reductions in compliance costs after improving staff awareness of EFRIS features such as electronic invoicing, real-time reporting, automated tax calculations, and digital record keeping. Documentary and policy reviews further corroborated these findings, emphasizing that enhanced taxpayer awareness leads to automation, fewer compliance errors, and lower enforcement-related costs.

On that note therefore, the findings indicate a clear pattern: basic awareness of EFRIS exists among SMEs, but limited understanding of system features and benefits constrains full adoption. At the same time, both quantitative and qualitative evidence consistently show that improving awareness of EFRIS significantly reduces compliance costs and enhances SME performance.

This underscores the importance of targeted awareness campaigns, continuous staff training, and practical demonstrations of EFRIS benefits to strengthen adoption and improve SME outcomes in Kampala District.

5.2: Discussion of Findings.

This section discussed the key findings of the study in relation to the research objectives and hypotheses and interpreted them within the context of existing literature and relevant theoretical perspectives. The discussion examined the implications of EFRIS utilization, perceived ease of use, system accessibility, and awareness on the performance of SMEs in Kampala District and highlighted areas of convergence and divergence with findings from previous empirical studies.

5.2.1: Determining the relationship between EFRIS System Utilization and the financial performance of SMEs in Kampala district.

The findings of this study demonstrated a clear and significant relationship between EFRIS system utilization and the financial performance of SMEs in Kampala District. These results are well explained by the Technology Acceptance Model (TAM) developed by Davis (1989), which posits that technology adoption and effective use are driven by perceived usefulness and perceived ease of use. In line with TAM, the study showed that SMEs that perceive EFRIS

as useful for improving accuracy, compliance, and operational control are more likely to utilize the system actively, resulting in improved financial performance.

Consistent with prior studies (OECD, 2021; Kato & Mutoro, 2022; URA, 2022), the findings confirmed that electronic invoicing and fiscal systems enhance business performance by improving record-keeping, reducing administrative errors, and strengthening financial control. The strong positive correlation between active EFRIS use and profitability ($r = 0.718$, $p = 0.000$) suggests that SMEs that integrate EFRIS into daily operations benefit from better revenue tracking, cost management, and decision-making. Qualitative evidence from FA2 & FA3 business further supports this, showing that real-time invoicing and integration with production and inventory systems enabled better pricing strategies, cost control, and profit optimization.

However, the descriptive findings revealed that EFRIS utilization among SMEs remains moderate and largely compliance-driven, rather than operationally integrated. Many SMEs primarily use EFRIS for invoicing and receipting to meet URA requirements, with limited integration into broader business systems. This finding aligns with Mugisha (2021) and Ahimbisibwe and Nangoli (2023), who observed that SMEs often struggle with full system integration due to digital skills gaps, system complexity, and infrastructural constraints. From a TAM perspective, this suggested that while SMEs acknowledge the usefulness of EFRIS for compliance, challenges related to perceived ease of use and accessibility continue to limit deeper adoption.

The regression results further strengthen the discussion by showing that EFRIS utilization explains a substantial proportion of SME profitability ($R^2 = 0.721$). Key predictors such as regular invoicing through EFRIS, active daily system use, system integration, and reduced non-compliance penalties significantly enhance financial performance. These findings implied that the intensity and quality of EFRIS utilization matter more than mere adoption. SMEs that go beyond routine or symbolic use and embed EFRIS into core operational processes are better positioned to realize financial gains.

An unexpected finding of the study was the negative short-term effect of timely tax payment and strict compliance reporting on profitability. While compliance is essential, these factors appear to exert temporary cash flow pressure on SMEs, reducing short-term profits. This suggested that although EFRIS improves long-term financial discipline and stability, SMEs may require better cash flow planning and financial management support to absorb the immediate effects of structured tax compliance.

The implications of these findings were significant for both policy and practice. For SMEs, the results highlighted the importance of viewing EFRIS not merely as a compliance obligation but as a strategic business tool that can enhance profitability when fully integrated. For URA and policymakers, the findings underscore the need to promote deeper operational use of EFRIS through targeted training, system simplification, and integration support, rather than

focusing solely on enforcement. Enhancing perceived usefulness and ease of use, as emphasized by TAM, will encourage SMEs to adopt EFRIS more fully and sustainably.

On that note therefore, the discussion confirmed that effective and integrated utilization of EFRIS has a strong positive influence on SME financial performance. While adoption levels remain moderate, the evidence clearly shows that SMEs that embrace EFRIS as a core operational system, rather than a compliance formality, achieve superior financial outcomes.

5.2.2: Examine the effect of perceived ease of use and system accessibility on SMEs' operational efficiency.

The findings clearly demonstrate that perceived ease of use and system accessibility significantly influence SMEs' operational efficiency. Both the Pearson correlation and regression analyses revealed statistically significant positive relationships between ease-of-use variables and SME performance outcomes. Specifically, the Pearson correlation results ($r = 0.449$, $p = 0.000$) indicate that SMEs that find EFRIS easier to learn are more likely to experience improved profitability and operational efficiency. Consequently, the null hypothesis (H_0), which states that there is no significant relationship between system ease of use of EFRIS and SME performance, was rejected.

The regression analysis further strengthened this conclusion by showing that ease of learning, user-friendly navigation, straightforward invoice generation, and minimal need for technical support jointly explain 72.1% of the variation in SMEs' operational efficiency ($R^2 = 0.721$). This indicates that usability and accessibility are not peripheral issues but central determinants of how effectively SMEs operate when using EFRIS.

From a Technology Acceptance Model (TAM) perspective, these findings confirm that when SME owners and employees perceive EFRIS as easy to learn and operate, they are more likely to use it consistently and effectively. This aligns with Davis (1989) and Venkatesh et al. (2021), who argue that perceived ease of use directly influences both behavioral intention and actual system use. In this study, ease of learning and navigation reduced user resistance, minimized errors, and shortened transaction processing time, thereby improving operational efficiency.

Moreover, The Diffusion of Innovation Theory (DOI) further explains these results by emphasizing that innovations perceived as less complex are adopted more rapidly and used more effectively. SMEs that perceived EFRIS as compatible with their daily operations and easy to trial demonstrated higher levels of operational efficiency. Conversely, complexity and accessibility challenges such as unstable internet connectivity slowed the diffusion process and limited efficiency gains among some SMEs.

The study's findings were consistent with prior empirical research. Similar to Kim and Park (2021) and Nalukwago (2022), the results show that system complexity and limited digital skills discourage effective system use among SMEs. The moderate mean scores for ease of learning (2.80) and user-friendly navigation (2.87) suggest that although EFRIS offers functional benefits, usability challenges persist. However, the relatively high mean score for invoice

generation (3.20) confirms Tumwebaze and Ssekandi's (2023) findings that SMEs tend to adopt and benefit more from system features that are simple and directly linked to daily tasks.

These findings also extend the literature by quantifying the combined effect of multiple usability factors, demonstrating that when ease of use and accessibility are jointly improved, operational efficiency gains are substantial.

A key pattern emerging from the results was that operational efficiency improves most when EFRIS is simple, reliable, and requires minimal technical support. The strongest predictors of efficiency were user-friendly system navigation ($\beta = 0.322$) and minimal need for technical support ($\beta = 0.320$). This suggests that SMEs value system stability and intuitive design more than basic compliance functionality. The lower influence of ease of learning ($\beta = 0.166$) indicates that while training is important, long-term efficiency depends more on how seamlessly the system fits into daily workflows.

The quantitative findings are strongly reinforced by qualitative evidence from interviews with SMEs such as FA4, FA5 & FA6 business. Interviewees consistently emphasized that EFRIS improved operational efficiency once staff became familiar with the system, but technical glitches and internet instability disrupted operations and increased reliance on support services. This triangulation confirms that usability and accessibility directly affect real-time business operations, not just perceived performance.

The findings had important implications for multiple stakeholders. For SMEs, the results highlighted the need to invest in staff training and internal system support to maximize efficiency gains from EFRIS. For URA and policymakers, the findings underscored the importance of improving system design, ensuring stable system access, and expanding technical support and user training programs. Simplifying the interface and reducing system downtime would significantly enhance SME operational efficiency and strengthen voluntary compliance.

An unexpected but important finding is that although EFRIS is perceived as useful, challenges related to learning and accessibility continue to limit its efficiency benefits for some SMEs. Despite the strong explanatory power of ease-of-use variables, initial learning difficulties and infrastructure constraints remain barriers. This suggests that TAM alone may not fully capture the broader socio-technical challenges faced by SMEs, reinforcing the need to integrate TAM with DOI, UTAUT, and Fiscal Exchange Theory for a more holistic understanding of technology adoption in developing economies.

On that note therefore, the findings provided strong empirical evidence that perceived ease of use and system accessibility of EFRIS had a significant and positive effect on SMEs' operational efficiency in Kampala District. When EFRIS is easy to learn, easy to navigate, reliable, and supported by minimal technical disruptions, SMEs operate more efficiently and experience improved business performance. These results supported the rejection of H0₂ and

emphasize that improving system usability and accessibility is critical for maximizing the performance benefits of EFRIS among SMEs.

5.3.3: Assessing the level of awareness and adoption of the EFRIS tax system among small and medium enterprise (SME) in Kampala District.

The findings indicated that awareness of EFRIS among SMEs in Kampala District was moderate but incomplete. Descriptive results showed that awareness of the features and functions of EFRIS recorded a mean score of 2.77, while staff training and access to information recorded a slightly lower mean of 2.67. From a TAM perspective, this partial awareness limits both perceived usefulness and perceived ease of use, which are the two key determinants of technology acceptance. When SME owners and employees do not fully understand system features, they are less likely to appreciate its usefulness beyond basic compliance, thereby reducing their motivation to adopt and utilize EFRIS effectively.

Qualitative evidenced from FA7 Energy Uganda and FA8 Restaurant supports this interpretation. Managers acknowledged awareness of EFRIS as a mandatory invoicing and tax reporting tool but reported limited understanding of its advanced features. This confirmed TAM's assertion that insufficient knowledge constrains behavioral intention and actual system use, even when adoption is mandatory.

The Diffusion of Innovation Theory further explains the uneven adoption patterns observed among SMEs. According to DOI, awareness and knowledge are the first stages in the adoption process (Rogers, 2003). The moderate awareness levels identified in this study suggest that many SMEs remain at the knowledge or persuasion stage, rather than progressing to full implementation and confirmation. Perceived complexity of EFRIS, limited trial-ability, and weak observability of its business benefits were evident barriers to adoption.

The findings align with Ahimbisibwe and Nangoli (2023), who observed that SMEs are more likely to adopt digital tax systems when the relative advantage is clear and observable. In this study, the low mean score for understanding the benefits of EFRIS (Mean = 2.40) indicates that many SMEs do not clearly see how the system adds value to their business operations. As a result, adoption remains compliance-driven rather than innovation-driven, limiting deeper system utilization.

Perceptions regarding URA's efforts to promote EFRIS awareness recorded a mean score of 2.97, indicating mixed views. While URA officers highlighted ongoing sensitization initiatives, documentary evidence and SME interviews revealed gaps in coverage, follow-up training, and adaptation to SMEs' varying digital capacities. This finding reflects one of TAM's key limitations such as infrastructure, communication strategies, and organizational support.

The mixed perceptions also align with DOI's emphasis on communication channels. Ineffective or inconsistent communication slows the diffusion process, especially among informal and semi-formal SMEs in urban settings like Kampala.

Inferential findings revealed a strong and statistically significant positive relationship between awareness of EFRIS features and reduction in tax compliance costs ($r = 0.628$, $p = 0.000$). This relationship was further confirmed by regression results, which showed that awareness explains 39.4% of the variation in compliance cost reduction. These findings support both TAM and Fiscal Exchange Theory by demonstrating that when SMEs understand how EFRIS works, they are more likely to perceive it as useful, comply voluntarily, and benefit from lower administrative and financial costs.

Qualitative evidence from FA10 Limited and FA11. Pharmacy reinforces this conclusion. Managers reported that improved awareness enabled them to avoid errors, reduce reliance on external consultants, minimize penalties, and manage tax processes internally. This confirms that awareness is not merely informational but a critical driver of adoption outcomes and performance improvements.

The findings are consistent with prior studies in Uganda and other developing economies. Kambugu (2021) and Nakatudde and Kaggwa (2022) similarly found that SMEs with higher awareness of electronic tax systems were more likely to adopt them and realize compliance-related benefits. However, this study extends existing literature by empirically demonstrating the magnitude of awareness effects on compliance costs using both correlation and regression analysis, and by triangulating these results with qualitative evidence.

A key pattern emerging from the findings is that basic awareness of EFRIS exists, but deeper understanding of its business benefits remains limited. An unexpected finding is that despite mandatory adoption, awareness levels remain moderate rather than high. This suggests that enforcement alone does not guarantee effective adoption and supports DOI's argument that adoption depends on perceived value, not just obligation.

The findings imply that improving awareness and understanding of EFRIS features is essential for enhancing adoption and SME performance. For URA, this means shifting from one-off sensitization activities to continuous, sector-specific training and support. For SMEs, investing in internal knowledge-sharing and staff training can significantly reduce compliance costs and improve efficiency. For policymakers, the results highlight the need to strengthen digital infrastructure and taxpayer education as part of broader tax administration reforms.

On that note therefore, the study demonstrates that awareness is a critical foundation for the adoption and effective use of EFRIS among SMEs in Kampala District. While basic awareness of the system is widespread, gaps in training,

understanding of benefits, and consistent sensitization limit full adoption. Guided by TAM and DOI, the findings show that higher awareness significantly enhances adoption outcomes by reducing compliance costs and improving SME performance. These results underscore the importance of sustained awareness-building initiatives to support meaningful and beneficial adoption of EFRIS among SMEs.

5.3: Conclusions.

This section presented the main conclusions of the study based on the findings discussed in Chapter Four and the discussion in Section 5.2. It brings together both quantitative and qualitative results to clearly show what the study discovered about the use of the EFRIS system and its effect on the performance of SMEs in Kampala District. The conclusions addressed the study objectives and hypotheses and summarized how EFRIS utilization, ease of use, system accessibility, and awareness influence SME performance. The section also linked the findings to the guiding theories of the study and highlighted the key lessons and implications drawn from the research.

5.3.1: EFRIS System Utilization and the financial performance of SMEs in Kampala district.

The study concluded that EFRIS system utilization has a strong and significant positive effect on the financial performance of SMEs in Kampala District. Although the total level of EFRIS use among SMEs was moderate and largely driven by compliance requirements, evidence from both quantitative and qualitative findings showed that SMEs that actively and effectively utilize EFRIS achieve better financial outcomes. Regular use of EFRIS for invoicing and receipting, active daily use of the system, and integration with other business software significantly improved profitability by enhancing revenue tracking, cost control, and financial decision-making.

The strong positive correlation ($r = 0.718$) and high explanatory power of the regression model ($R^2 = 0.721$) confirmed that EFRIS utilization was a key predictor of SME profitability. However, the study also concluded that mere routine use of EFRIS, without proper operational integration, did not yield meaningful financial benefits. Additionally, strict compliance requirements, such as timely tax payments, created short-term cash flow pressures that temporarily affect profits.

On that note therefore, the findings demonstrated that EFRIS should not be viewed solely as a tax compliance tool but as a strategic business system. SMEs that move beyond basic compliance and integrate EFRIS into their core operations were more likely to experience improved financial performance. Therefore, deeper operational integration, enhanced system usability, and supportive capacity-building initiatives are critical for SMEs to fully realize the financial benefits of EFRIS.

5.3.2: Perceived Ease of use and System Accessibility on SMEs' Operational Efficiency.

The study concluded that perceived ease of use and system accessibility of EFRIS had a strong and significant positive influence on the operational efficiency of SMEs in Kampala District. While SMEs generally find invoice generation

through EFRIS easy and practical, challenges remain in learning the system, navigating the interface, and coping with technical and connectivity issues. These usability and accessibility factors directly affect how efficiently SMEs conduct daily operations.

The inferential results confirm that ease of use is a critical determinant of SME performance. The significant positive correlation between ease of learning EFRIS and operational efficiency ($r = 0.449$, $p = 0.000$) demonstrates that SMEs that find the system easier to understand and use are more likely to operate efficiently. Regression findings further reinforce this conclusion by showing that ease of learning, user-friendly navigation, straightforward invoice generation, and minimal need for technical support jointly explain a substantial proportion (72.1%) of the variation in SMEs' operational efficiency.

Among the ease-of-use factors, user-friendly system navigation and reduced reliance on technical support emerged as the strongest predictors of operational efficiency, indicating that SMEs benefit most when EFRIS is intuitive, stable, and reliable. Qualitative evidence from FA4, Restaurant, and FA5 & FA6 confirmed that operational efficiency improved significantly once staff are familiar with the system, but is disrupted by system downtime, internet instability, and technical glitches.

On that note therefore, the findings demonstrate that usability and accessibility are central to realizing the efficiency benefits of EFRIS. The study therefore concludes that improving system design, simplifying user interfaces, ensuring reliable system access, and strengthening continuous training and technical support are essential for enhancing SME operational efficiency. These results support the rejection of the null hypothesis (H_0) and emphasize that effective use of EFRIS depends not only on its functionality but also on how easy and accessible the system is for everyday business operations.

5.3.3: Level of awareness and adoption of the EFRIS tax system among small and medium enterprise (SME) in Kampala District.

The study concludes that the level of awareness and adoption of the EFRIS tax system among SMEs in Kampala District is moderate but incomplete and uneven. While most SMEs are generally aware of EFRIS as a mandatory tax invoicing and reporting system, many lack adequate knowledge of its full features, functions, and business benefits. This limited understanding constrains effective adoption and results in the system being used mainly for compliance rather than as a value-adding business tool.

Descriptive findings show moderate awareness of EFRIS features and functions and insufficient staff training and access to information. Qualitative evidence from SMEs such as Rubis Energy Uganda, FA8. Restaurant, and FA9

Supermarket confirmed that EFRIS knowledge is often acquired informally, with limited structured training from URA. As a result, staff turnover, inconsistent sensitization, and weak follow-up training continue to hinder consistent adoption and effective system use.

Inferential results clearly demonstrate that awareness is a critical driver of adoption outcomes and SME performance. The strong positive relationship between awareness of EFRIS and reduced compliance costs ($r = 0.628$, $p = 0.000$), supported by regression results ($R^2 = 0.394$), confirms that increased awareness significantly lowers compliance costs. SMEs with better understanding of EFRIS features experience fewer errors, reduced penalties, lower reliance on external consultants, and improved administrative efficiency. This finding led to the rejection of the null hypothesis ($H0_3$).

These results align with the Technology Acceptance Model (TAM), which emphasizes that perceived usefulness and ease of use depend heavily on user awareness and understanding. Limited awareness reduces perceived usefulness, thereby weakening motivation to adopt and fully utilize the system. The Diffusion of Innovation Theory (DOI) further explains the uneven adoption patterns, showing that many SMEs remain at the awareness or persuasion stage rather than progressing to full implementation due to perceived complexity and limited visibility of benefits.

On that note therefore, awareness is a foundational requirement for the successful adoption and effective use of EFRIS among SMEs in Kampala District. Improving awareness through continuous, targeted training, practical demonstrations, and consistent sensitization is essential for strengthening adoption, reducing compliance costs, and enhancing SME performance. The findings highlight the need for URA and policymakers to prioritize sustained awareness-building initiatives alongside system enforcement to achieve long-term benefits of EFRIS for SMEs.

5.4 Recommendations.

Based on the study's conclusions, the following practical and actionable recommendations were proposed to enhance the effective utilization of EFRIS and improve the performance of SMEs in Kampala District. These recommendations were directly derived from the study findings and were structured for key stakeholders.

5.4.1: Recommendations to Policymakers and the Uganda Revenue Authority (URA).

URA and other policymakers should shift the focus of EFRIS implementation from strict enforcement toward promoting its value as a business-support system. Sensitization efforts should emphasize how EFRIS can improve record-keeping, revenue tracking, cost control, and decision-making rather than viewing it solely as a compliance requirement.

Continuous, sector-specific training programs should be strengthened to improve SMEs' understanding of EFRIS features and functions. In addition, URA should simplify the system interface, reduce system downtimes, and enhance integration with commonly used accounting and point-of-sale software to encourage daily operational use. Strengthening technical support through accessible helpdesks, mobile support teams, and online guidance materials would further reduce reliance on external consultants and minimize compliance errors.

Policymakers should also consider flexible compliance support measures, such as phased tax payments or grace periods, to help SMEs manage short-term cash flow pressures associated with tax compliance.

5.4.2: Recommendations to SME Owners and managers.

SME owners and managers are encouraged to move beyond using EFRIS purely for compliance and instead integrate the system into their core business operations.

Regular use of EFRIS for monitoring sales, analyzing costs, and supporting financial planning can significantly enhance profitability and efficiency.

SMEs should invest in staff training to improve system use, reduce errors, and lower compliance costs. Additionally, improved cash-flow planning is essential to absorb the short-term financial effects of tax payments. Managers should also make greater use of EFRIS-generated reports to inform pricing, budgeting, and strategic business decisions.

5.4.3: Recommendations for future Research.

Future studies should examine the long-term effects of EFRIS utilization on SME growth, sustainability, and competitiveness. Further research is also needed to explore the behavioral, infrastructural, and organizational barriers that limit full operational integration of EFRIS among SMEs. Comparative and sector-based studies across different regions of Uganda would provide deeper insights into adoption patterns and help identify best practices for improving the effectiveness of digital tax systems.

On that note therefore, the study recommends that EFRIS adoption should evolve from basic compliance toward full operational integration. Through improved system usability, continuous training, and supportive policy measures, SMEs can fully leverage EFRIS as a strategic tool to enhance efficiency, reduce costs, and improve overall financial performance in Kampala District.

5.5: Contribution to the knowledge.

This study contributes to knowledge in several practical and meaningful ways by generating new insights, strengthening existing theories, improving research approaches, and offering useful guidance for policy and practice.

5.5.1: New findings.

The study shows that although many SMEs in Kampala District use EFRIS mainly because it is mandatory, those that use the system more actively and integrate it into their daily business operations gain clear benefits. A key new finding is that simply using EFRIS to comply with URA requirements does not significantly improve business performance. Instead, SMEs that understand the system, use it daily, and link it with other business processes experience higher profits and lower tax compliance costs. The study also reveals that awareness alone is not enough, business benefits are only realized when awareness is combined with proper training, ease of use, and consistent system access.

5.5.2: Theoretical Contribution.

The study strengthens the Technology Acceptance Model (TAM) and the Diffusion of Innovation Theory (DOI) by showing that their core ideas still apply even in a mandatory system like EFRIS. The findings confirm that perceived ease of use, perceived usefulness, and awareness strongly influence how well SMEs use EFRIS and the benefits they gain from it. This means that forcing adoption through policy is not enough; SMEs must also see value in the system and find it easy to use. By applying these theories in the Ugandan SME context, the study extends their relevance to digital tax systems in developing countries.

5.5.3: Methodological Contribution.

This research adds value by using both quantitative and qualitative methods. Statistical analysis helped measure relationships between EFRIS use, awareness, ease of use, and SME performance, while interviews provided real-life explanations from business owners and managers. Combining these methods made the findings more reliable and easier to understand. The study also provides clear numerical evidence showing how strongly EFRIS use affects business performance, which future researchers can use as a reference.

5.5.4: Contextual Contribution.

The study adds important knowledge about how SMEs in Kampala District experience and use a digital tax system. Many existing studies focus on developed countries, but this research highlights challenges common in developing economies, such as limited digital skills, unstable internet, and staff turnover. By focusing on Uganda's EFRIS system, the study fills a gap in local and regional research on electronic tax systems and SME performance.

5.5.5: Practical Contribution.

The study offers practical guidance for different stakeholders. For URA and policymakers, it shows the importance of improving system usability, expanding continuous training, and supporting SMEs beyond enforcement. For SME

owners and managers, the findings demonstrate that EFRIS can be more than a compliance tool but it can help improve efficiency, reduce costs, and increase profits when used properly.

5.6: Areas for further research

While this study provides valuable insights into the use of EFRIS and its effects on SME performance in Kampala District, several areas require further investigation to deepen understanding and broaden the scope of knowledge.

Future studies could examine the long-term effects of EFRIS adoption on SME financial performance. This study mainly captured short- to medium-term outcomes; therefore, longitudinal research would help determine whether the benefits of EFRIS, such as improved profitability and reduced compliance costs, are sustained over time as businesses become more experienced with the system.

Further research should also explore sector-specific differences in EFRIS adoption and performance outcomes. SMEs operate in diverse sectors such as retail, manufacturing, hospitality, and services, each with unique operational needs. Comparative studies across sectors would help identify which industries benefit most from EFRIS and which require tailored support or system modifications.

Another important area for future research is the role of digital infrastructure and internet reliability in shaping EFRIS effectiveness. Given that system accessibility emerged as a key determinant of operational efficiency, future studies could assess how variations in internet quality, system downtime, and access to digital devices influence adoption and performance, particularly in peri-urban and rural areas.

Future researchers may also investigate the influence of behavioral and institutional factors such as trust in tax authorities, perceptions of government transparency, and fear of surveillance on EFRIS adoption. Integrating theories such as UTAUT or institutional theory could provide a more comprehensive understanding of why some SMEs resist or partially adopt digital tax systems despite mandatory requirements.

Additionally, further studies could evaluate the effectiveness of URA's training and sensitization programs by comparing SMEs that receive structured training with those that rely on informal learning. This would provide evidence on the most effective awareness and capacity-building strategies for improving adoption and reducing compliance costs.

Finally, future research could expand the geographical scope beyond Kampala District to include other urban and rural areas of Uganda. Such studies would enhance generalizability and provide a national perspective on EFRIS adoption and its impact on SME performance.

On that note, continued research in these areas will support evidence-based improvements in digital tax administration and help maximize the benefits of EFRIS for SMEs across Uganda.

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APPENDICES

APPENDIX I: *Questionnaire for Business Owners and managers*

Title of the study: "Electronic Fiscal Receipting and Invoicing Solution Tax Systems and Performance of Small and Medium Enterprises in Kampala Uganda."

Dear Respondent,

I am BALISANYUKA PAUL MULUNZI a master’s student at Metropolitan International University conducting a study on "Electronic Fiscal Receipting and Invoicing Solution Tax Systems and Performance of Small and Medium Enterprises in Kampala Uganda." You have been selected to participate in this study. The purpose of this questionnaire is to collect data for academic purposes only. Your responses will be treated with utmost confidentiality. Kindly take a few minutes to complete this questionnaire.

Thank you for your cooperation.

Section a: Bio-data (Demographics Information)

Please tick (✓) the appropriate option in the table below.

No.	Demographic Information	Response Options
1	Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female
2	Age Group	<input type="checkbox"/> 18–25 <input type="checkbox"/> 26–35 <input type="checkbox"/> 36–45 <input type="checkbox"/> 46+
3	Level of Education	<input type="checkbox"/> Certificate <input type="checkbox"/> Diploma <input type="checkbox"/> Degree <input type="checkbox"/> Postgraduate
4	Duration in Business	<input type="checkbox"/> Less than 1 year <input type="checkbox"/> 1–3 years <input type="checkbox"/> 4–7 years <input type="checkbox"/> 7+ years
5	Nature of Business	<input type="checkbox"/> Retail <input type="checkbox"/> Wholesale <input type="checkbox"/> Services <input type="checkbox"/> Manufacturing <input type="checkbox"/> Other: (please specify) <input type="text"/>
6	Business Location in Kampala, District	<input type="checkbox"/> Central <input type="checkbox"/> Nakawa <input type="checkbox"/> Rubaga <input type="checkbox"/> Kawempe <input type="checkbox"/> Makindye

Section B: Electronic fiscal receipting and invoicing solution (EFRIS) – (independent variable)

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Introduction to respondent

Please indicate the extent to which you agree with the following statements using the scale below: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), 5 = Strongly Agree (SA)

(Please tick (✓) the appropriate option in the table below)

Questionnaire Table:

Section	Variable	Statement	1	2	3	4	5
A (i)	System Utilization (SU)	My business actively uses the EFRIS system in daily operations.					
		EFRIS is used for generating invoices and receipts regularly.					
		The system is integrated with other business software we use.					
		The use of EFRIS has become routine in our business operations.					
		My business complies with URA reporting requirements due to EFRIS.					
		The use of EFRIS has reduced our chances of non-compliance penalties.					
		EFRIS helps us meet tax obligations in a timely manner.					
A (iii)	System Ease of Use (SEU)	It is easy to learn how to use the EFRIS system.					
		Navigating the system interface is user-friendly.					
		The process of generating invoices is straightforward.					
		We rarely need technical support to use EFRIS.					
A (iv)	System Awareness (SW)	I am aware of the features and functions of the EFRIS system.					
		My staff have received sufficient training or information about EFRIS.					
		The Uganda Revenue Authority has promoted awareness of the EFRIS system effectively.					
		I understand the benefits of using the EFRIS system in my business.					

Section C: SME performance (*dependent variable*)

Instructions to Respondents:

Please indicate the extent to which you agree with the following statements using the scale below: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree. (Please tick (✓) the appropriate option in the table below).

Questionnaire Table – SME Performance

Section	Variable	Statement	1	2	3	4	5
C (i)	Financial Performance (FP)	My profits have increased since using the EFRIS system.					
		EFRIS has improved our financial reporting accuracy.					
		The business has experienced stable revenue growth.					
		We are better able to monitor and control costs.					
C (iii)	Market Performance (MP)	The use of EFRIS has enhanced our market competitiveness.					
		We have attracted more customers due to better service delivery.					
		EFRIS gives us a better image as a compliant business.					
		My customer satisfaction has improved since implementing EFRIS.					
C (iv)	Compliance Cost (CC)	My cost of tax compliance has reduced with EFRIS.					
		We no longer need external consultants for tax reporting.					
		Penalties and fines related to tax have decreased.					
		Time spent on tax compliance has been significantly reduced.					

Thank you once again for your participation.

Section D: incentives for adoption

Please rate the following statements regarding the incentives provided by the government or your organization for adopting EFRIS, Use the scale, 1 = **Strongly Disagree**, 2 = **Disagree**, 3 = **Neutral**, 4 = **Agree**, 5 = **Strongly Agree**. (Please tick (✓) the appropriate option in the table below)

No.	Statement	1	2	3	4	5
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D1	Adequate training is provided to SME staff on the use of electronic fiscal devices (EFDs).					
D2	The cost of acquiring and implementing EFDs is affordable to SMEs.					
D3	Technical support is easily accessible when challenges arise with EFDs.					
D4	Government policies facilitate the effective implementation of EFD systems among SMEs.					
D5	SMEs have sufficient internet connectivity to effectively use electronic invoicing systems.					
D6	SME owners and employees have a positive perception of EFD and e-invoicing systems.					
D7	The level of digital literacy among SME operators enables efficient use of electronic solutions.					
D8	The physical infrastructure e.g., electricity, hardware supports the use of EFDs in SMEs.					
D9	Government provides incentives for SMEs to adopt and maintain EFD use.					
D10	System downtime and delays in technical support negatively affect trust in the EFD system.					

Appendix ii: interview guide, (URA officials and tax consultants; and focus group guides for discussions with SME associations.)

Dear Respondent,

I am a Master’s student of Metropolitan International University pursuing a master of Business Administration. As a partial requirement for the award of the said degree, this questionnaire has been designed to collect data on ‘Electronic fiscal receipting and invoicing solution tax systems (EFRIS) and performance of small and medium enterprises (SMEs) in Kampala district, Uganda. You have been chosen as one of the respondents because of your unique expertise, knowledge, experience, and your plight in ‘(EFRIS) and SMEs performance in Kampala, district, Uganda. I hope you will spare your valuable time to provide answers to the following questions by filling in or ticking the right alternatives as may be required. Please, kindly take note that the research will be conducted and handled with strict confidentiality and you need not indicate your name.

Thank you very much for accepting to participate in this research.

Yours truly;



Appendix iii: bio-data (demographic information) table

For URA Officials, Tax Consultants, and SME Association Members

Section	Item	Response Options
A. Personal Information	Full Name (Optional)	_____
	Gender	<input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Prefer not to say
	Age Group	<input type="radio"/> 18-25 <input type="radio"/> 26-35 <input type="radio"/> 36-45 <input type="radio"/> 46-55 <input type="radio"/> 56 and above
	Level of Education	<input type="radio"/> Certificate <input type="radio"/> Diploma <input type="radio"/> Bachelor's Degree <input type="radio"/> Postgraduate Degree <input type="radio"/> Other: _____
B. Professional Background	Category of Respondent	<input type="radio"/> URA Official <input type="radio"/> Tax Consultant <input type="radio"/> SME Association Member
	Name of Organization (Optional)	_____
	Department/Unit (If applicable)	_____
	Job Title/Designation	_____
	Years of Experience	<input type="radio"/> < 1 year <input type="radio"/> 1-3 yrs <input type="radio"/> 4-6 yrs <input type="radio"/> 7-10 yrs <input type="radio"/> Over 10 yrs
C. Involvement with EFRIS	Have you been involved in EFRIS-related activities?	<input type="radio"/> Yes <input type="radio"/> No
	If yes, in what capacity? (Tick all that apply)	<input type="checkbox"/> Policy development <input type="checkbox"/> System training <input type="checkbox"/> User support <input type="checkbox"/> Compliance enforcement <input type="checkbox"/> Public sensitization <input type="checkbox"/> Other: _____
	Familiarity with EFRIS	<input type="checkbox"/> Very familiar <input type="checkbox"/> Somewhat familiar <input type="checkbox"/> Not very familiar

The following questions intended to explore how Electronic Fiscal Receipting and Invoicing System (EFRIS) influences the performance of SMEs.

1. How often do you use the Electronic Fiscal Receipting and Invoicing System (EFRIS) in your business operations, and for what purposes?
2. Have you received any training or support on how to use EFRIS? If yes, was it effective?
3. What challenges have you encountered while using EFRIS?
4. Has the adoption of EFRIS led to any noticeable improvements in your business performance, such as increased efficiency, revenue growth, or cost savings?
5. Has using EFRIS improved your financial record-keeping, reporting, and tax compliance? If so, how?

6. How easy or difficult do you find using the EFRIS system? What features are most user-friendly or problematic?

7. Do you think the ease or difficulty of using EFRIS affects how consistently you use it and your overall business performance?

8. How did you first hear about EFRIS, and do you believe SMEs have been adequately informed about it?

9. Did your awareness of legal or financial consequences influence your decision to adopt EFRIS?

10. What improvements would you suggest to enhance EFRIS usability, awareness, and its impact on SME performance?

Appendix. IV: Documents and literature review checklist

No.	Source/Institution	Document Type	Key Information Sought	Relevance to Study
1	Uganda Revenue Authority (URA)	EFRIS Rollout Reports	Implementation timelines, target taxpayer categories, coverage by region or sector	Understand extent and progression of EFRIS adoption
2	Uganda Revenue Authority (URA)	Tax Compliance Statistics	SME compliance rates before and after EFRIS	Evaluate impact of EFRIS on tax compliance among SMEs
3	Uganda Revenue Authority (URA)	EFRIS Policy Briefs and Manuals	Policy objectives, system functionalities, legal mandates	Provide policy and operational context for EFRIS
4	Uganda Bureau of Statistics (UBOS)	Statistical Abstracts on Business Performance	SME growth rates, sector performance, employment, turnover	Measure SME performance indicators
5	Uganda Bureau of Statistics (UBOS)	Annual Business and Economic Surveys	Sector distribution, economic contribution of SMEs	Inform sample design and economic relevance of SMEs
6	Kampala Capital City Authority (KCCA)	Business Registration Records	Registered SMEs by division (e.g., Nakawa, Makindye, Rubaga, etc.)	Define sampling frame and area coverage

7	Economic Policy Research Centre (EPRC)	Research Reports on Taxation and SMEs	Evidence on digital taxation impact, barriers to SME growth	Support literature review with local empirical insights
8	Ministry of Finance, Planning and Economic Dev't	Budget Framework Papers	Government strategies on digital tax systems and SME development	Show alignment of EFRIS with national tax reform goals
9	International Organizations (World Bank, IMF)	Country Tax Reform and Economic Reports	Independent assessments of Uganda's tax digitization and EFRIS rollout	Provide external evaluations of policy effectiveness
10	Academic Databases and Libraries	Journal Articles and Theses	Conceptual frameworks, theoretical models, and prior studies on EFRIS or SMEs	Identify research gaps and theoretical underpinnings