MAKERERE UNIVERSITY

MAKERERE UNIVERSITY BUSINESS SCHOOL

ADOPTION OF ELECTRONIC PROCUREMENT BY CONTRACTORS IN SOUTH WESTERN UGANDA

BY

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2022/HD10/4097U

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A DISSERTATION SUBMITTED TO MAKERERE UNIVERSITY BUSINESS SCHOOL (FACULTY OF GRADUATE STUDIES AND RESEARCH) IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION OF MAKERERE UNIVERSITY

PLAN A

NOVEMBER, 2025

DECLARATION

I, **AHABWE ARMYLINE** declare that this research dissertation titled, *"**adoption of electronic procurement by contractors in south western Uganda**"* is entirely original and has not been previously submitted for any academic award.

Signed..... Date.....29/08/2025.....

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APPROVAL

This research dissertation has been submitted for examination with our approval as University Supervisors.

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Signed …… Date: 29/08/2025

Mr. Hassan Musoke

DEDICATION

This work is dedicated to my incredible parents, who instilled in me the value of education and hard work. Your unwavering support, both emotional and practical, made this endeavor possible. Thank you for every phone call, every word of encouragement, and every belief in my dream. To my precious son Saige Eulet Ahabwe, you are my greatest inspiration. Your presence reminded me to push forward, even when faced with difficulties. I hope this accomplishment shows you the importance of pursuing your passions and that with effort and determination, you can achieve anything you set your mind to.

ACKNOWLEDGEMENT

First, I thank Almighty God who is great and makes everything beautiful in His own timing.

My eternal gratitude goes to Dr. Mpangwire Viola and Mr. Hassan Musoke, my research supervisors, for their invaluable guidance and support at every step of this journey. Your timely responses and constant encouragement have been indispensable. May you be richly blessed.

Special thanks to my colleagues and friends, Atukunda Daisy, Asha Ajiet, Doreen Kabadaki and Esther Kyomuhangi for their continuous support and constructive feedback. Their discussions and perspectives helped refine the project's focus and approach.

Lastly, I would like to extend my heartfelt thanks to my dear Husband, Mr. Eulet Samuel for his unwavering support and understanding throughout this journey. His encouragement and patience have been a great source of strength.

This project would not have been possible without the contributions of these individuals Thank you all for your support and encouragement.

Ebenezer, this far the Lord has brought me!

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ABSTRACT

This study investigates the adoption of e-procurement among contractors in South Western Uganda, focusing on perceived usefulness, perceived ease of use, and attitudes towards the technology. E-procurement's adoption is known to vary across sectors and regions, with significant investments seen in countries like South Africa and Kenya. In Uganda, while e-procurement offers opportunities for improving procurement processes, challenges such as delays in payments, corruption, and inadequate technical capacity hinder its widespread use. The study employs the Technology Acceptance Model (TAM) to analyze how perceived usefulness and ease of use influence attitudes and adoption rates among contractors. Research objectives include examining relationships between perceived usefulness, ease of use, attitude, and e-procurement adoption.

This study explores the adoption of e-procurement among contractors in South Western Uganda, employing a cross-sectional design and survey methodology. The research targeted public contractors involved in various procurement activities, with a sample size of 138 determined through Krejcie and Morgan's table. Stratified random sampling ensured representation across different contract types and sectors. Primary data was collected via structured surveys and semi-structured interviews.

With a response rate of 79% from 109 surveyed contractors, the study finds that perceived usefulness and perceived ease of use significantly influence e-procurement adoption, while attitude plays a substantial role in this process. The analysis reveals that perceived ease of use has the strongest correlation with adoption, followed by perceived usefulness, and then attitude. Regression analysis indicates that these factors collectively explain 54.4% of the variance in e-procurement adoption.

The study concludes that demonstrating the practical benefits, ensuring user-friendliness, and fostering positive attitudes are crucial for increasing adoption rates.

Recommendations include designing intuitive systems, providing comprehensive training, and sharing success stories. The study identifies limitations such as varying technological literacy and a cross-sectional design, suggesting areas for further research include examining technological proficiency, conducting longitudinal studies, and exploring adoption across different contractor segments.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background, articulates the problem statement, and defines the research objectives

1.1 Background of the Study

E-procurement has revolutionized global supply chains by enhancing efficiency, transparency, and cost-effectiveness through digital platforms, enabling seamless cross-border transactions and real-time data access (Waithaka & Kimani, 2021). It is widely adopted across industries such as manufacturing, healthcare, and finance, where it improves delivery processes, reduces costs, and increases operational efficiency (Soong et al., 2020). In the public sector, countries like the United States, the United Kingdom, and Singapore have developed robust e-procurement systems involving various government and procurement agencies to modernize public procurement and ensure greater accountability (Musa et al., 2023). Similarly, African nations including South Africa, Kenya, and Rwanda have made substantial investments in e-procurement infrastructure to combat corruption and streamline procurement practices (Zitha et al., 2021).

Uganda has also made notable strides toward digital procurement through policy and regulatory frameworks. The Public Procurement and Disposal of Public Assets (PPDA) Act (2003) provides a legal basis for public procurement reforms, emphasizing transparency and competitiveness. Furthermore, the E-Government Procurement (e-GP) Strategy implemented by PPDA guides the rollout of electronic systems for public procurement. These efforts align with the National ICT Policy, which promotes digital transformation across all government functions, including

procurement. Despite these progressive strategies, the implementation and adoption of e-procurement remain uneven across sectors and regions.

E-procurement adoption in Uganda varies significantly across sectors, with higher uptake observed in manufacturing, healthcare, and finance, where the benefits such as cost savings, waste reduction, increased productivity, and enhanced visibility are more widely recognized (Setyadi et al., 2023; Soong et al., 2020).

However, the construction and service sectors, particularly contractors bidding for government contracts, show inconsistent adoption patterns, often influenced by technological readiness and organizational culture.

This study focused specifically on contractors in the construction and service sectors in South Western Uganda. Although these contractors operate within a national policy environment that supports e-procurement, there remains a limited understanding of how these national strategies translate into actual adoption on the ground, especially in less urbanized areas.

Urban centers like Mbarara and Kabale exhibit relatively higher adoption rates due to better digital infrastructure, higher education levels, and increased digital literacy (Shatta & Shayo, 2021). In contrast, rural districts such as Isingiro and Rukungiri face substantial barriers, including poor internet connectivity, inadequate ICT infrastructure, and a lack of technical capacity (Shatta et al., 2020). Furthermore, contract size and complexity play a role in adoption patterns. Larger construction contracts are often hindered by rigid traditional procurement methods and complex stakeholder dynamics, while smaller contracts show greater adaptability (Marei, 2022; Zitha et al., 2021).

While previous studies have highlighted these regional and sectoral disparities, they often fall short in explaining the underlying mechanisms the how and why behind these variations. They rarely examine mediation effects, such as how perceived usefulness (P-USE) and ease of use influence the relationship between infrastructure availability and actual e-procurement adoption. This study addresses this gap by applying the Technology Acceptance Model (TAM) (Davis, 1989), which focuses on P-USE and ease of use as determinants of technology adoption. By doing so, it goes beyond descriptive analysis to identify the factors that mediate adoption behavior among contractors.

Understanding these mediation pathways is crucial for designing effective policy interventions, particularly in regions lagging in adoption. This study contributes new insights by analyzing the mediating role of users' perceptions in the relationship between external infrastructure and e-procurement usage, examining how Uganda's national digital procurement strategies are reflected in local contractor practices, and providing context-specific recommendations to improve e-procurement uptake in South Western Uganda's construction and service sectors.

1.2 Problem statement

The need for e-procurement in public contracts in Uganda is increasingly evident, as it offers a significant opportunity to contribute to building resilient infrastructure, promoting business sustainability, and fostering innovation. This is achieved through reducing paperwork, minimizing travel needs, and facilitating efficient communication and collaboration between buyers and suppliers potentially leading to innovation in sustainable products and services (SDG Report, 2023). E-procurement also enhances transparency, efficiency, and accountability in procurement processes (Musa et al., 2023). In recognition of these benefits, the Government of

Uganda formally adopted e-procurement in 2023 to streamline public procurement, reduce corruption, and improve overall governance (PPDA Annual Report, 2023).

However, despite these policy advancements, the adoption rate of e-procurement remains low, especially among contractors. According to the Auditor General Report (2023), and a 2019 PPDA study, major barriers include delays in payments (54%), corruption (53%), high bidding costs (46%), unclear specifications (41%), inadequate knowledge (36%), limited financial capacity (35%), and lack of technical skills (14%) (Public Procurement and Disposal of Public AssetsAuthority,2019). These challenges reflect deeper behavioral and perceptual issues that align with established technology adoption theories.

Specifically, the Technology Acceptance Model (TAM) explains that user adoption is driven by perceived usefulness (P-USE) and perceived ease of use (PEU) (Davis, 1989). Issues such as system complexity, lack of trust, insufficient training, and resistance to change directly correspond to these TAM constructs. Despite its relevance, this theoretical framework is underutilized in explaining the adoption gap among Ugandan contractors.

This study seeks to address this gap by grounding its investigation in Technology Acceptance Model, and further exploring the mediating role of user attitude between perceptions (usefulness and ease of use) and adoption behavior in South Western Uganda.

1.3 Purpose of the study

To establish the relationship between perceived usefulness, perceived ease of use, attitude, and adoption of e-procurement among contractors in south western Uganda.

1.4 Research objectives

i. To establish the relationship between Perceived Usefulness and Adoption of e-procurement among contractors in south western Uganda.

ii. To establish the relationship between Perceived Ease of Use and Adoption of e-procurement among contractors in south western Uganda

iii. To establish the relationship between attitude and adoption of e-procurement among contractors in south western Uganda.

iv. To establish the mediation effect of attitude in the relationship between perceived ease of use and adoption of e-procurement among contractors in south western Uganda.

v. To establish the mediation effect of attitude in the relationship between perceived ease of use and adoption of e-procurement among contractors in south western Uganda.

1.5 Research hypotheses.

H1: There is a positive relationship between perceived usefulness and adoption of e-procurement among contractors in south western Uganda.

H2: There is a positive relationship between perceive ease of use and adoption of e-procurement among contractors in south western Uganda n.

H3: There is a positive relationship between attitude and adoption of e-procurement among contractors in south western Uganda.

H4: There is a significant mediation effect of attitude between perceived ease of use and adoption of e-procurement among contractors in south western Uganda.

H5: There is a significant mediation effect of attitude between perceived usefulness and adoption of e-procurement among contractors in south western Uganda.

1.6 Significance of the study

Policy makers: By automating workflows and centralizing data, e-procurement platforms can streamline procurement, fostering a more transparent and accountable system**.** This study will shed light on how these factors contribute to enhancing procurement practices, ultimately leading to more efficiency and transparency.

Practitioners: Efficient procurement processes are essential for fostering economic development by ensuring the efficient and cost optimized fulfillment. This study has the potential to stimulate economic growth, attract investment, and create opportunities for local businesses.

Knowledge: This work contributes to the understanding of digital procurement integration within South Western Uganda. It will provide valuable theoretical insights and practical implications for future research in the fields of procurement, information systems, and development studies.

1.7 Scope of the study

1.7.1 Geographical Scope

The primary area are contractors operating within South Western Uganda. South Western Uganda encompasses districts (Bushenyi, Sheema, Ibanda, Mitooma, Buhwenju, Rubirizi, Mbarara, Isingiro, Rwampara, Ntungamo, Rukungiri, Kabale, Kisoro, Kanungu, Rubanda, Rukiga, Kamwengye, Kazo and Kiruhura). The research involved contractors from both urban and rural areas within South Western Uganda to ensure a comprehensive understanding of e-procurement adoption across different settings within the region. This was done with the help of research assistants.

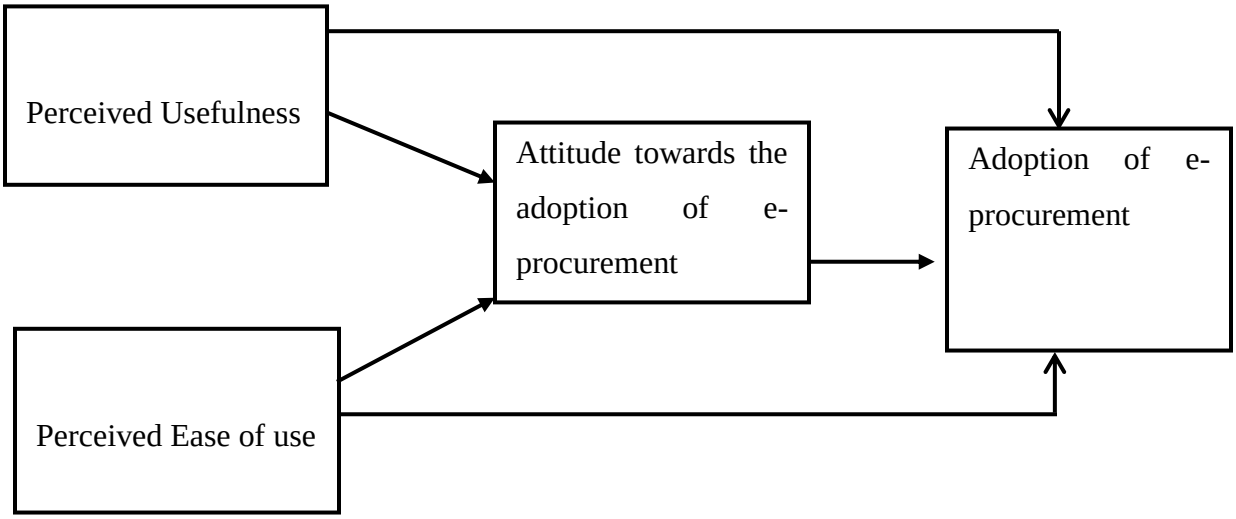
1.7.2 Content Scope

This research focused on investigating the relationship between perceived usefulness, perceived ease of use, attitude, and adoption of e-procurement among contractors in south western Uganda.

1.7.3 Time Scope

The research be completed within a one-year timeframe (January 2023 to September, 2024).

1.8 Conceptual Framework



Source: *Derived from the works of Almajali et al. (2023), Masudin et al. (2021), Waithaka &Kimani (2021), Mélon&Spruk (2020), Mothibi (2020), Shatta & Shayo (2021), JIBRIL (2023), Soong et al. (2020), Mavidis&Folinas (2022), Owere (2021), and Kasose (2023),*

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter examines how technology acceptance model, perceived usefulness, perceived ease of use, attitude and adoption of e procurement are interconnected.

2.1 Technology Acceptance Model (TAM)

This study employs the Technology Acceptance Model (TAM), developed by Fred Davis in 1986 (Davis et al., 2023). The TAM suggests that individuals are more likely to accept technology if they find it useful and easy to use (Addy et al., 2024)

Perceived use means how much someone believes a tool will improve their work or make them more productive. PEU means how easy they think the tool is to use.

The model also explains that how people feel about using the technology is influenced by these two factors — and those feelings then affect whether or not they actually decide to use it. The TAM framework is particularly useful for analyzing the digital procurement integration by contractors within Western Uganda (Addy et al., 2024). By examining the interplay between P-USE, PEU, attitudes, and the adoption of e-procurement, this study assesses how contractors' perceptions and attitudes influence their decisions to utilize the e-procurement system (Addy et al., 2024). For instance, if contractors perceive that e-procurement enhances the procurement process and is user-friendly, adoption is more likely to develop positive attitudes, leading to higher usage rates (Addy et al., 2024).

2.2 Contractors

Contractors, in relation to e-procurement, refer to individuals or organizations engaged in construction, manufacturing, service provision, or other business activities that involve procurement of products. (Boafo et al, 2020). "Public contractors are firms that provide goods or services to the government under a contract, typically awarded through a competitive bidding process." (John Graham, 2015)

Contractors' importance in procurement ecosystems as key stakeholders get involved in sourcing, bidding, and supplying goods and services for various projects and operations (Boafo et al, 2020).

Their attitudes, perceptions, and performance regarding digital procurement integration significantly affect its success plus the effectiveness. (Boafo et al, 2020). Understanding contractors' needs, preferences, and challenges is essential for designing and implementing e-procurement systems that meet their requirements and contribute to overall procurement efficiency and effectiveness (Boafo et al, 2020).

2.3 E-procurement adoption

E-procurement leverages digital tools and platforms to manage different phases of the procurement process, encompassing sourcing, bidding, purchasing, and payment (Mohungoo et al, 2020). E-procurement systems include electronic tendering systems, e-catalogs, electronic reverse auctions, and electronic payment systems, enabling organizations to manage procurement activities electronically, reduce paperwork, minimize errors, and facilitate faster and more cost-effective transactions (Mohungoo et al, 2020).

E-procurement adoption refers to the extent to which organizations have implemented and utilized electronic procurement systems and processes. It involves the adoption of digital tools and technologies to manage tasks such as sourcing suppliers, issuing purchase orders, receiving and processing invoices, and tracking payments.

Adoption can vary widely across different industries, regions, and organizations, depending on factors such as the size of the organization, its industry, the level of technological maturity, and the perceived benefits and challenges of e-procurement.

Attitude and perception play crucial roles while adopting and using e-procurement systems among contractors (Shatta et al., 2020a). Attitude toward e-procurement refers to contractors' overall evaluation and predisposition towards adopting these systems, influenced by their perception and drawbacks of e-procurement adoption (Shatta et al., 2020). Positive attitudes are associated with beliefs that e-procurement can bring benefits such as cost savings, process efficiency, and improved decision-making (Shatta et al., 2020).

Perception encompasses contractors' subjective views and interpretations of e-procurement systems.(Shatta et al., 2020). Positive perceptions of e-procurement systems are conducive to adoption and usage, while negative perceptions may impede adoption efforts (Shatta et al., 2020).

2.4 The relationship between Variables

2.4.1 Perceived usefulness and adoption of e-procurement

Examining how public contractors view the usefulness of e-procurement systems and their willingness to use them is crucial to uncovering the factors that encourage technology adoption in public procurement. (Alomar, 2023). P-USE, which refers to the belief in a technology's

ability to enhance job performance, significantly influences attitudes or overall evaluations and predispositions towards adopting the technology (Bandara, 2020). In the context of e-procurement adoption, P-USE is crucial in shaping public contractors' attitudes and decision-making processes regarding e-procurement systems (Boafo et al., 2020; Jules, 2022).

Empirical studies consistently demonstrate a positive relationship between P-USE and public contractors' attitudes towards e-procurement adoption. Contractors who view e-procurement systems as beneficial for improving procurement processes, decision-making, and achieving organizational goals tend to develop more favorable attitudes towards adoption (Kasose, 2023; Marei, 2022). For example, Masudin et al. (2021) found that contractors perceiving e-procurement as useful for reducing procurement cycle times and increasing efficiency expressed positive attitudes towards adoption. These findings highlight the importance of P-USE in fostering positive attitudes. Widespread adoption of e-procurement hinges on effectively communicating the clear advantages it offers (Shatta & Shayo, 2021). Moreover, P-USE influences contractors' expectations of the benefits and outcomes of e-procurement adoption, with those believing in its efficiency, cost reduction, and decision-making enhancements more likely to develop favorable attitudes (Shatta et al., 2020; TEKLU, 2020). Efforts to enhance public contractors' perceptions of the usefulness of e-procurement systems can lead to more positive expectations and attitudes, ultimately facilitating e-procurement adoption within the public procurement context (Trust, 2023; Ochieng'Oyugi&Kamaara, 2023).

2.4.2 Perceived Ease of Use and adoption of e-procurement

Exploring the relationship between PEU and attitudes towards adopting e-procurement among public contractors highlights the importance of user experience in technology adoption within public procurement (Jibril, 2023). PEU refers to how effortless and intuitive individuals find a

technology to navigate (Setyadi et al., 2023), while attitude represents their overall evaluations and predispositions towards its adoption (Musa et al., 2023). In the context of e-procurement, PEU significantly influences contractors' attitudes towards adopting these systems (Almajali et al., 2023). Research consistently shows that when contractors find e-procurement systems easy to use, with intuitive interfaces and minimal complexity, they are more likely to develop positive attitudes towards their adoption (Shatta et al., 2020; Odi & Suryani, 2020). This relationship underscores the need for designing user-friendly e-procurement systems to enhance user satisfaction, reduce perceived barriers, and foster favorable attitudes and higher adoption rates among public contractors (Soong et al., 2020).

PEU influences public contractors' perceptions of system reliability and technical support. Public contractors' attitudes towards e-procurement adoption are influenced by their perceptions of the reliability of e-procurement systems and the availability of technical support (Musa et al., 2023). When public contractors perceive e-procurement systems as reliable and backed by robust technical support mechanisms, they are more likely to develop positive attitudes towards adoption (Jibril, 2023). Reliability encompasses factors such as system uptime, data security, and error handling, which impact contractors' trust in the system and their willingness to rely on it for critical procurement tasks (Soong et al., 2020). Additionally, the availability of responsive technical support channels can address contractors' concerns and provide assistance when needed, further enhancing their overall user experience with e-procurement systems. Therefore, efforts to ensure system reliability and provide timely technical support services can contribute to more positive attitudes and increased adoption rates among public contractors.

PEU significantly affects public contractors' attitudes towards e-procurement adoption by influencing their perceptions of the time and effort required for system implementation and

maintenance (Meshack, 2021). Contractors who believe that e-procurement systems require minimal time and effort for implementation, customization, and ongoing maintenance are more likely to develop positive attitudes towards adoption (Kasose, 2023). This perception reduces the perceived burden on contractors and facilitates smoother adoption processes. Thus, streamlining system implementation procedures, automating maintenance tasks, and minimizing disruptions to daily operations can enhance the PEU of e-procurement systems and encourage more positive attitudes towards adoption among public contractors.

2.4.3 Attitude and adoption of e-procurement

Investigating the relationship between public contractor attitudes and e-procurement adoption is essential for effective public procurement reforms (Masudin et al., 2021). Attitude significantly impacts individuals' behavioral tendences and intent to adopt new technologies, including e-procurement systems (Masudin et al., 2021). Public contractors, as key stakeholders in procurement processes, significantly influence the success and effectiveness of e-procurement initiatives within the public sector (Masudin et al., 2021). Understanding the relationship between attitude and adoption of e-procurement among public contractors is essential for policymakers, practitioners, and researchers seeking to promote the uptake and utilization of e-procurement systems in public procurement contexts (Masudin et al., 2021).

Research by Smith et al. (2019) in a developing country context revealed that contractors with positive attitudes towards e-procurement adoption were more likely to express intention to adopt e-procurement systems. These findings suggest that cultivating positive attitudes towards e-procurement adoption among public contractors is crucial for increasing adoption, achieving efficient and transparent public procurement with e-procurement. (Shatta & Shayo, 2021)

Perceived benefits of e-procurement influence public contractors' attitudes towards adoption. The advantages of e-procurement systems, like cost savings, efficiency, &improved transparency, significantly impact public contractors' attitudes towards adoption. Empirical studies have shown that public contractors are more likely to have positive attitudes towards e-procurement adoption when they perceive the technology as offering substantial benefits and advantages over traditional procurement methods. For instance, research by Jones et al. (2020) found that public contractors who perceived e-procurement as beneficial for enhancing procurement processes and achieving organizational goals were more inclined to have positive attitudes towards its adoption. (Waithaka & Kimani, 2021)

Organizational support and leadership influence public contractors' attitudes towards e-procurement adoption. The presence of organizational support and effective leadership within public contracting organizations significantly influences public contractors' attitudes towards e-procurement adoption. Research has shown that public contractors are more likely to have positive attitudes towards e-procurement adoption when they perceive strong support from organizational leaders and stakeholders, as well as access to adequate resources and training for digital procurement implementation. Research by Wang et al. (2018) conducted among public contractors in a developed country context found that organizational support, including top management commitment and investment in training and infrastructure, positively influenced contractors' attitudes towards e-procurement adoption. These findings underscore the importance of creating a supportive organizational environment and effective leadership structures to facilitate positive attitudes towards e-procurement adoption among public contractors. (Alomar, 2023)

Perceived risks associated with e-procurement adoption may hinder public contractors' attitudes towards adoption. Public contractors' attitudes towards e-procurement adoption can be negatively influenced by perceived risks associated with the adoption process. Studies have shown that concerns about potential risks such as security vulnerabilities, data privacy issues, system reliability, and compatibility with existing systems may lead to skepticism and resistance towards e-procurement adoption among public contractors. For example, research by Li et al. (2020) found that public contractors expressed concerns about the security and reliability of e-procurement systems, which contributed to negative attitudes towards adoption. Addressing perceived risks and uncertainties through effective risk management strategies and communication efforts is essential for mitigating barriers to e-procurement adoption and fostering positive attitudes among public contractors. (Li et al., 2020)

Social influence and peer networks are significant in shaping public contractors' perception towards e-procurement adoption. Public contractors' attitudes towards e-procurement adoption can be influenced by social factors such as peer influence, social norms, and perceptions of others' experiences with e-procurement systems. Research suggests that public contractors are more likely to have positive attitudes towards adoption when they perceive support and encouragement from colleagues, peers, and industry associations. For instance, a researchundertakenby Zhou et al. (2019) revealed public contractors who received positive feedback and recommendations from peers were more inclined to adopt e-procurement systems. Leveraging social networks and peer networks to disseminate positive experiences and success stories related to e-procurement adoption can enhance public contractors' attitudes and facilitate adoption within the public sector. (Zhou et al., 2019)

2.4.4 Mediating effect of attitude between PEU and adoption of e-procurement

PEU positively influences e-procurement adoption among public contractors, as intuitive and straightforward systems increase user acceptance (Soong et al., 2020). When systems are easy to navigate, they reduce perceived barriers and enhance appeal (Musa et al., 2023). Additionally, usability and functionality perceptions impact adoption decisions, with simpler and more efficient systems leading to higher adoption rates (Odi & Suryani, 2020; Shatta et al., 2020).

Perceptions of the learning curve and training requirements also affect adoption, with systems perceived as easy to learn and requiring minimal training being more likely to be adopted (Kasose, 2023; Meshack, 2021). System reliability and technical support further influence adoption, as reliable systems with strong support mechanisms foster positive attitudes (Shatta et al., 2021; Owere, 2021; Boafo et al., 2020).

Integration with existing IT infrastructure is another critical factor, with seamless integration promoting positive attitudes towards adoption (Alomar, 2023; Waithaka &Kimani, 2021; Masudin et al., 2021). Lastly, perceptions of the time and effort required for implementation and maintenance influence adoption, with easier implementation and maintenance processes facilitating smoother adoption (Mothibi, 2020; Kasose, 2023).

2.4.5 Mediating effect of attitude between P-USE and adoption of e-procurement

P-USE refers to how individuals perceive a technology's ability to enhance job performance and task completion, while adoption involves integrating that technology into work practices. In the context of e-procurement adoption among public contractors, P-USE significantly shapes attitudes and behaviors regarding system adoption.Research shows a strong positive relationship between P-USE and e-procurement adoption among public contractors. When contractors

perceive e-procurement as useful for improving procurement efficiency, decision-making, and achieving organizational goals, they are more likely to adopt the technology (Almajali et al., 2023). Emphasizing the benefits of e-procurement systems can enhance positive attitudes and increase adoption rates (Masudin et al., 2021).

P-USE also affects how contractors view the alignment of e-procurement systems with organizational goals. If contractors see these systems as supporting objectives like cost reduction, process efficiency, and transparency, they are more likely to find the technology beneficial (Shatta et al., 2020; Almajali et al., 2023). Additionally, perceptions of potential process improvements and efficiency gains influence adoption decisions. When contractors see e-procurement as streamlining processes and improving workflow efficiency, they recognize its usefulness and are motivated to adopt it (Trust, 2023; Mélon&Spruk, 2020).

Finally, perceptions of competitive advantages offered by e-procurement adoption, such as cost savings and enhanced supplier relationships, drive contractors' willingness to adopt the technology (Masudin et al., 2021; Almajali et al., 2023). Emphasizing these competitive advantages can stimulate adoption among public contractors.

2.5 Knowledge gap

The empirical research on e-procurement adoption among public contractors in South Western Uganda identifies critical factors that influence technology adoption. System reliability, integration with current infrastructure, and perceived competitive advantages are significant contributors. However, there are notable gaps, including a shortage of empirical studies focused on South Western Uganda, limited exploration of how P-USE and ease of use are experienced in this context, and inadequate examination of customized implementation strategies. Addressing

these gaps will enhance academic knowledge and offer practical recommendations for policymakers and practitioners, ultimately improving transparency, efficiency, and accountability in public procurement practices.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the research design and the data collection methods together with the analytical techniques of the study

3.1 Study Design

This study utilized a cross-sectional design complemented by a survey methodology to investigate the research questions. The rationale for selecting a survey-based approach lies in its capacity to efficiently gather comprehensive data from a broad population economically. Such methodology enables the quantitative collection of data amenable to inferential statistical analysis. Cross-sectional designs are advantageous for their economic efficiency in data collection at a singular temporal point, essential for the uniform timing of data acquisition critical to objective analysis.

3.2 Study population and sampling

3.2.1 Study Population

This research population comprised public contractors engaged in various procurement activities within South Western Uganda. According to PPDA website as per April (2024) there are 215 contracts running in south western Uganda. Public contracts that can potentially be taken through e-procurement include construction contracts for infrastructure projects, supply contracts for goods and materials, service contracts for consultancy and maintenance, works contracts for civil engineering, procurement contracts for agricultural inputs and equipment, and ICT-related contracts for software development and IT services. These contracts represent a diverse range of procurement activities commonly undertaken by public contractors in South Western Uganda.

By focusing on these contract types, the research aims at encompassing the scope of e-procurement implementation strategies and their effects across various sectors and industries in the region

3.2.2 Sample Size

The sample size for this study was 138 contractors as determined using the Krejcie and Morgan (1970) table for determining sample size in educational research. Given the total population of public contractors operating within the twenty-one districts of South Western Uganda and the potential number of contracts that can be taken through e-procurement, the appropriate sample size was calculated to ensure sufficient representation.

3.3 Sampling technique

The sampling criteria involved stratified random sampling of public contractors registered and actively engaged in procurement activities within South Western Uganda. Contractors must have experience or involvement in e-procurement processes or demonstrate willingness to participate in the study. Stratification was based on the type of contract undertaken by the contractors, ensuring representation across various sectors and industries within the region. Additionally, contractors must have been willing to provide accurate and honest responses to survey questions regarding their attitudes, perceptions, and experiences with e-procurement adoption.

3.4 Sources of Data

Data for the study was sourced from primary sources. Primary data was collected through structured surveys administered to public contractors operating within the selected districts. The survey captured information on contractors' attitudes, perceptions, and experiences related to e-procurement adoption.

3.5 Data collection Methods, instruments and procedure

3.5.1 Data Collection Methods

Data was collected through survey questionnaires. Survey questionnaires were administered to public contractors to gather quantitative data on attitudes, perceptions, and adoption of e-procurement. Semi-structured were conducted with key stakeholders, such as procurement officers, government officials, and e-procurement experts, to obtain qualitative insights and perspectives on e-procurement adoption in South Western Uganda.

3.5.2 Data Collection Instruments

The survey questionnaire was designed based on study variables, incorporating validated scales to measure the constructs. The questionnaire featured both closed-ended and Likert-scale questions to enable quantitative analysis.

3.5.3 Data Collection Procedure

Before collecting data, an introductory letter was secured from the university. A pilot study was carried out to assess the reliability and validity of the survey questionnaire and interview guides. Survey questionnaires were distributed either electronically or in person, according to participants' preferences. Data collection spanned a specified period.

3.6 Measurement of variables

Variable	***Measures***	***Dimension***	***Source***
Perceived Ease of Use	Intuitiveness	User Experience	(Almajali et al., 2023)
	User-friendly	User Experience	(Masudin et al., 2021)
	Accessibility	System Features	(Waithaka & Kimani, 2021)
Perceived Usefulness	Efficiency	Task Performance	(Mélon&Spruk, 2020)
	Effectiveness	Task Performance	(Mothibi, 2020)
	Utility	Process Improvement	(Trust, 2023)
Attitude	Perceived value	User Perception	(Shatta & Shayo, 2021)
	Trust	User Perception	(JIBRIL, 2023)
	Compatibility	User Perception	(Soong et al., 2020)

Adoption of E-procurement	Implementation	Organizational Processes	(Mavidis&Folinas, 2022)
	Utilization	System Usage	(Owere, 2021)
	Integration	System Integration	(Kasose, 2023

3.7 Validity and reliability of data collection instruments

3.7.1 Validity Tests

In this study, the concept of validity defined as the extent to which a tool reflects the true value of what it's supposed to measure is split into two categories: internal and external. To ensure the instruments' accuracy, the study drew upon the critical assessments of experienced officers. These professionals were asked to scrutinize the questionnaires for their relevance to the study's objectives before their application in the field. Furthermore, their insights were sought on the appropriateness and applicability of each question. Following this preliminary evaluation, the instruments' validity was formally quantified employing the Content Validity Index formula, maintaining rigorous adherence to established methodological standards (Oso & Onen, 2008).

$$CVI = \frac{\text{Number of items rated relevant}}{\text{Total number of items}} \times 100\%$$

3.7.2 Reliability

The pilot study involved administering the instruments twice to assess their reliability. The study then utilized SPSS software to calculate Cronbach's Alpha Reliability Coefficient (CARC) and compared the results of the two tests.

Table 1: Reliability and validity test results

Variable	CVIs	Cronbach's Alpha
1. PEU	0.784	0.773
2. P-USE	0.794	0.769
3. Attitude	0.802	0.741
4. Adoption of E-procurement	0.881	0.895

A reliability coefficient exceeding 0.7 indicates a strong instrument, according to Sekaran (2003). This threshold was used to evaluate the instruments' reliability.

3.8 Data Analysis

Analysis was done quantitatively. In this study the unit of analysis was the contracting firms in southwestern Uganda and the unit of inquiry was the managing director, an administrator or the accountant of the contracting firms.

3.9 Ethical Considerations

This research prioritized ethical considerations throughout the process. Participation was voluntary, ensuring individuals choose to engage freely without pressure. To protect respondent privacy, confidentiality was maintained for all information provided. Additionally, anonymity was guaranteed, allowing participants to feel comfortable and forthcoming with their responses. All information gathered was used strictly for academic purposes, and this was clearly communicated to participants.

The questionnaire was designed to be clear and understandable. We avoided overly complex or ambiguous language to ensure participants can comprehend the questions and provide accurate

answers. Furthermore, the questionnaire was written in neutral English, accessible to all participants, to gather reliable and relevant data aligned with the research objectives.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter covers the data analysis performed, their presentation and interpretation. In this chapter, the relationship between attitude, perception and adoption of e-procurement systems was established.

4.1 Response rate

Although the targeted sample size was 138 respondents, only 109 respondents filled and returned the questionnaires, which gave a response rate of 79%. The response rate was adequate to provide reliable data and findings since it is above three-fourth (75%) as recommended by Oman (2013).

4.2 Demographic characteristics of respondents

Demographic characteristics refer to basic information about the people who took part in the study, such as their gender, age group, education level, and how often they use e-procurement systems. This information helps show whether the participants were suitable for the study and whether the data they gave is trustworthy. The findings are shared below;

4.2.1 Distribution by Gender

The gender of the respondents was distributed as indicated in table 2 below

Table 2: Gender of the respondents

Gender	***Frequency***	***Percent (%)***
Male	71	65.1
Female	38	34.9
Total	109	100

Source: Primary data 2024

Among the 109 respondents, 65.1% were male and 34.9% were female, showing a gender distribution skewed towards males with a notable difference of 30.2 percentage points between the genders.

4.2.2 Distribution by Age Group

The respondents age groups are presented as seen in the table below

Table 3: Age Group of the respondents

Age Group	*Frequency*	*Percent (%)*
18-25	0	0
26-35	17	15.6
36-45	49	45
46-55	28	25.7
56 +	15	13.8
Total	109	100

Source: Primary data 2024

The table 3 presents the age distribution of 109 respondents, with the majority falling within the 36-45 age group (45%) followed by the 46-55 age group (25.7%), while younger age groups (18-25 and 26-35) had no representation. This implies that the respondents in the study were mature individuals with ability to understand the objectives of the study and provide reliable information.

4.2.3 Distribution by Education

Table 4:Educational Qualification of the respondents

Educational Qualification	*Frequency*	*Percent (%)*
Diploma	3	2.8
Bachelor's	92	84.4
Master's	11	10.1
Doctorate	3	2.8
Total	109	100

Source: Primary data 2024

Among 109 respondents, ninety-two respondents held Bachelor's degrees, eleven respondents held Master's degrees. The Diploma and Doctorates were smaller groups. Table 4.3 indicates that the respondents had the ability to comprehend the objectives of the study.

4.2.4 Distribution by rate of use of the e-procurement systems

The study summarized the respondents by frequency of use of the e-procurement systems as presented below

Table 5:Rate of Use of the e-procurement systems

Rate of use of e-procurement	***Frequency***	***Percent (%)***
Never	17	15.6
Rarely	30	27.5
Sometimes	48	44
Often	11	10.1
Very often	3	2.8
Total	109	100

Source: Primary data 2024

The table 4.4 illustrates the frequency of e-procurement system usage among 109 respondents, with the majority indicating usage sometimes (44%) or rarely (27.5%). A smaller percentage reported frequent usage, with 10.1% often using and 2.8% using the system very often. This implies that a high percentage of contractors have indeed not adopted the e-procurement systems.

4.3 Correlation results

The study examined the correlation coefficients among the selected study variables and the results are presented below

Table 6: Correlation Matrix

Variables	1	2	3	4
P-USE – 1	1			
PEU – 2	.362**	1		
Attitude toward E-procurement – 3	.237*	0.18	1	
E-procurement adoption – 4	.470**	.689**	.325**	1

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

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

The study explored the relationship between various perceptions and the adoption of e-procurement systems among contractors in South Western Uganda. Findings showed a positive and significant relationship between P-USE and the adoption of e-procurement ($r = .470$, $p < .01$), indicating that when contractors find the system helpful to their work, they are more likely to adopt it. Similarly, PEU was also positively and significantly related to adoption ($r = .689$, $p < .01$), suggesting that the simpler the system appears to use, the more likely contractors are to implement it in their operations.

In terms of attitude towards adoption, the results revealed a positive and significant link between P-USE and attitude ($r = .237$, $p < .01$). This means that when contractors believe the system is useful, they also tend to have a more favorable attitude toward using it. However, there was a positive but statistically insignificant relationship between PEU and attitude ($r = .018$, $p < .01$), implying that ease of use alone does not strongly influence contractors' attitudes.

Attitude itself was found to have a significant and positive relationship with actual adoption of e-procurement systems ($r = .325$, $p < .01$). This suggests that a more favorable attitude towards e-procurement among contractors is likely to result in greater adoption of the system in South Western Uganda.

4.4 Regression results

The study used a multiple linear regression model to achieve objectives one to three and the results are presented in the table below

Table 4.9: Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**SE**	**Beta**		
(Constant)	-1.691	0.527		-3.207	0.002
P-USE	0.472	0.151	0.221	3.116	0.002
PEU	0.694	0.084	0.578	8.252	0.000
Attitude toward E-procurement	0.205	0.082	0.169	2.508	0.014
R	.746a				
R Square	0.557				
Adjusted R Sq	0.544				
F-Statistic	43.995				
Sig.	.000b				

a Dependent Variable: E-procurement adoption

The findings reveal that P-USE, PEU, and attitude toward e-procurement all have a positive and statistically significant influence on the adoption of e-procurement systems in South Western Uganda. Specifically, PEU shows the strongest positive effect (Beta = 0.578, $p < .01$), followed by P-USE (Beta = 0.221, $p < .01$), and then attitude (Beta = 0.169, $p < .01$). This means that when contractors view the system as useful, easy to use, and hold a favorable attitude towards it, they are significantly more likely to adopt it.

Overall, these three factors together explain 54.4% of the variation in adoption levels (Adjusted $R^2 = .544$), indicating a strong combined influence. However, the remaining 45.6% of the

variation is likely due to other factors not included in this study, such as political influences, infrastructure challenges, or environmental factors.

The model itself is statistically significant ($F = 43.995$, $p < .001$), confirming that the relationships observed are unlikely to be due to chance. This provides robust evidence that contractors' perceptions and attitudes meaningfully shape the adoption of e-procurement systems in the region.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter discusses the results achieved in chapter four and provides study recommendations

5.1 Discussion

This chapter discusses the influence of P-USE, ease of use, and attitudes on the adoption of e-procurement systems. It draws conclusions from the data, discussing the implications. Additionally, the chapter offers practical recommendations aimed at improving e-procurement adoption.

5.1.1 Relationship between P-USE and adoption of e-procurement among contractors in south western Uganda.

There is a positive significant relationship between P-USE and adoption of e-procurement among contractors in South Western Uganda. Contractors who find e-procurement systems beneficial are more inclined to adopt them. Specifically, when e-procurement is perceived as useful for streamlining bill payments, simplifying contract management tasks, and enhancing efficiency in the contract application process, contractors are more likely to integrate these systems into their operations. This positive perception of usefulness reduces resistance to change and encourages adoption by highlighting the tangible benefits, such as time savings, reduced paperwork, and improved accuracy.

This agrees with a study that P-USE also affects how contractors view the alignment of e-procurement systems with organizational goals. If contractors see these systems as supporting objectives like cost reduction, process efficiency, and transparency, they are more likely to find

the technology beneficial (Shatta et al., 2020; Almajali et al., 2023). Highlighting the strategic relevance of e-procurement can promote adoption among public contractors. Research shows a strong positive relationship between P-USE and e-procurement adoption among public contractors. When contractors perceive e-procurement as useful for improving procurement efficiency, decision-making, and achieving organizational goals, they are more likely to adopt the technology (Almajali et al., 2023). Emphasizing the benefits of e-procurement systems can enhance positive attitudes and increase adoption rates (Masudin et al., 2021). Additionally, perceptions of potential process improvements and efficiency gains influence adoption decisions. When contractors see e-procurement as streamlining processes and improving workflow efficiency, they recognize its usefulness and are motivated to adopt it (Trust, 2023; Mélon&Spruk, 2020).

5.1.2 Relationship between perceive ease of use and adoption of e-procurement among contractors in south western Uganda

There is a positive significant relationship between PEU and adoption of e-procurement among contractors in South Western Uganda. When contractors find that e-procurement systems are clear and easy to understand, they are more likely to embrace them. This includes aspects like minimal effort required for learning and using the system, flexibility in handling various procurement tasks, time efficiency, and enhanced transparency in transactions. These characteristics make the technology more accessible and appealing, as contractors can quickly adapt to and benefit from its use without facing steep learning curves or significant disruptions to their workflow. The ease of use also builds trust in the system, as transparency and flexibility are critical for managing contracts and procurement processes efficiently. As a result, contractors are

more willing to adopt e-procurement systems, recognizing that they can achieve greater efficiency and accountability in their operations with less effort and time investment.

These findings are in line with Soong et al., 2020 who conclude that PEU positively influences e-procurement adoption among public contractors, as intuitive and straightforward systems increase user acceptance. When systems are easy to navigate, they reduce perceived barriers and enhance appeal (Musa et al., 2023). Additionally, usability and functionality perceptions impact adoption decisions, with simpler and more efficient systems leading to higher adoption rates (Odi & Suryani, 2020; Shatta et al., 2020). System reliability and technical support further influence adoption, as reliable systems with strong support mechanisms foster positive attitudes (Shatta et al., 2021; Owere, 2021; Boafo et al., 2020).

5.1.3 Relationship between P-USE and attitude towards the adoption of e-procurement among contractors in south western Uganda.

There is a positive significant relationship between P-USE and attitude towards adoption of e-procurement among contractors in South Western Uganda. Contractors who perceive e-procurement services as helpful in managing their applications, find the features valuable, and rely on it for bidding are more likely to develop a positive attitude towards its adoption. This positive attitude stems from the recognition that e-procurement enhances operational efficiency, simplifies processes, and provides a reliable platform for competitive bidding. When contractors see tangible benefits in their day-to-day activities, such as streamlined application management and valuable features that aid in bidding, they are more inclined to view e-procurement favorably and embrace it as a beneficial tool. Thus, the P-USE directly shapes their attitude towards adoption.

These findings concur with Empirical studies that consistently demonstrate a positive relationship between P-USE and public contractors' attitudes towards e-procurement adoption. Contractors who view e-procurement systems as beneficial for improving procurement processes, decision-making, and achieving organizational goals tend to develop more favorable attitudes towards adoption (Kasose, 2023; Marei, 2022). For example, Masudin et al. (2021) found that contractors perceiving e-procurement as useful for reducing procurement cycle times and increasing efficiency expressed positive attitudes towards adoption. P-USE, which refers to the belief in a technology's ability to enhance job performance, significantly influences attitudes or overall evaluations and predispositions towards adopting the technology. In the context of e-procurement adoption, P-USE is crucial in shaping public contractors' attitudes and decision-making processes regarding e-procurement systems (Boafo et al., 2020; Jules, 2022).

5.2 Conclusions

This study investigated the factors influencing the adoption of electronic procurement (e-procurement) systems by contractors in South Western Uganda, guided by the Technology Acceptance Model (TAM). The findings revealed that both P-USE and PEU have statistically significant and positive direct effects on the adoption of e-procurement. Contractors are more inclined to adopt e-procurement systems when they find them beneficial in improving operational efficiency, saving time, and aligning with organizational goals. Similarly, when the systems are easy to use, intuitive, and transparent, they are more readily accepted by users. These results are consistent with the TAM framework, where both P-USE and ease of use are key predictors of technology adoption behavior.

However, mediation analysis showed that attitude does not significantly mediate the relationships between P-USE and adoption, or between PEU and adoption. The Sobel test results

and confidence intervals indicate that, while attitude is positively associated with both predictor variables, its role as a mediator is statistically insignificant. This suggests that in this particular context, contractors make adoption decisions primarily based on direct evaluations of usefulness and ease of use, rather than through their attitudinal dispositions. These findings highlight a more pragmatic adoption behavior, where contractors prioritize functionality and efficiency over affective or evaluative responses.

From a practical perspective, the study underscores the importance of demonstrating the tangible benefits and user-friendliness of e-procurement systems to drive adoption. Efforts aimed at improving system usability and clearly communicating value propositions may be more effective than those focused solely on shaping positive attitudes. Policymakers and system developers should therefore invest in simplifying interfaces, ensuring system reliability, and showcasing how e-procurement aligns with contractors' goals. These strategies will likely lead to increased uptake of e-procurement, contributing to more efficient and transparent procurement processes in Uganda's construction sector.

5.3 Recommendations

First, government institutions should prioritize the development and deployment of user-friendly e-procurement platforms. These systems should be designed with intuitive interfaces that accommodate varying levels of digital literacy among contractors. The Public Procurement and Disposal of Public Assets Authority (PPDA), in partnership with ICT developers, should engage users through participatory design sessions to ensure systems are mobile-compatible and accessible. To support this initiative, amendments should be made to existing ICT guidelines under the e-Government Procurement (e-GP) Strategy to mandate usability testing and user feedback integration prior to full-scale implementation.

Second, structured and decentralized training programs should be implemented to equip contractors with the necessary skills to navigate e-procurement platforms. The Ministry of ICT and National Guidance, in collaboration with the PPDA and local governments, should develop modular training content that includes regional in-person workshops, online self-paced modules, and mobile-based instructional materials in both English and local languages. Additionally, the deployment of digital champions or procurement extension agents at the district level should be considered to provide ongoing technical support. As a policy measure, the Uganda Construction Sector Capacity Building Strategy should incorporate mandatory digital procurement training, with certification as a precondition for participation in public tenders.

Third, there is a need to strengthen technical support infrastructure to assist contractors during and after the transition to e-procurement. Regional help desks staffed with ICT officers should be established to offer real-time support, while toll-free lines and automated chatbot services should be integrated within the e-GP platform to provide timely responses to common inquiries. Funding for these support services should be explicitly provided in the national budget under the procurement modernization framework.

Fourth, awareness campaigns highlighting successful adoption cases should be promoted to encourage uptake among hesitant contractors. Documented success stories and case studies should be shared through national and local media outlets, as well as during stakeholder engagement sessions. Regional peer-learning forums should also be organized, allowing early adopters to share their experiences and mentor others. This effort should be supported by national policy through the creation of recognition programs such as annual procurement excellence awards.

Finally, policy enforcement and monitoring mechanisms should be enhanced to ensure sustained e-procurement adoption. A digital readiness index for contractors should be developed to assess their capacity to adopt and effectively use e-procurement systems. This index can inform tailored support interventions and guide implementation strategies. Furthermore, the PPDA Act and related procurement regulations should be revised to mandate digital submission of all public tenders by 2027, with a phased rollout based on district-level ICT readiness.

5.4 Limitations towards the study

Limited access to reliable data sources or difficulties in reaching out to contractors for surveys and interviews could impact the quality and completeness of the data collected. Issues such as inconsistent responses or incomplete data could affect the accuracy of the study's findings.

Variations in technological literacy among contractors might have influenced their perceptions of e-procurement systems. Contractors with lower levels of technological expertise may have found e-procurement systems more challenging to use, potentially skewing attitudes and adoption rates

The study adopted a cross sectional research design. As such, the study was not comprehensive enough as would have been if a longitudinal study was used.

The questionnaire was mainly adopted from the western world literature although an effort was made to adjust them to suit Ugandan context. This may therefore not be representative enough.

5.5 Areas for further research

Investigate the relationship between contractors' technological literacy and their adoption of e-procurement systems. Understanding how varying levels of tech proficiency affect adoption can help in designing more user-friendly systems and tailored training programs.

Conducting longitudinal studies to track the adoption of e-procurement systems over time would provide insights into how attitudes and usage patterns evolve. This would help in understanding the long-term impact of e-procurement on contractors' operations and identify factors influencing sustained adoption.

Investigate how e-procurement adoption varies across different segments of contractors, such as small vs. large enterprises, or by industry type. This could reveal specific needs, challenges, and benefits experienced by various contractor groups, leading to more targeted adoption strategies

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Appendices

Appendix I: Questionnaire

Greetings,

This survey is part of a research project at Makerere University Business School on the Adoption of Electronic Procurement by Contractors in South Western Uganda.

Thank you for participating! Your responses will be incredibly valuable in helping us understand how contractors in the region are using e-procurement systems. Answer the following questions to the best of your knowledge and experience. Your responses will be kept anonymous and confidential

Section A: Gender

Gender

CODE	Male	Female
A1	1	2

Age Group

CODE		18-25	26-35	36-45	46-55	56 +
A2		1	2	3	4	5

Educational Qualification

CODE		Certificate	Diploma	Bachelor's	Master's	Doctorate
A3		**1**	**2**	**3**	**4**	**5**

Rate of use of e-procurement

CODE		Never	Rarely	Sometimes	Often	Very often
A4		1	2	3	4	5

SECTION B:

In the following section indicate the measure of agreement or disagreement with the statements raised. Your choice is guided by the measures of; 1-Strongly Disagree (SD), 2-Disagree (D), 3-Agree (A) and 4-Strongly Agree (SA).

(i) Perceived usefulness- *Degree to which a person believes that e-procurement while applying for contracts will be of benefit to the company*

Code	Statements	SD	D	NS	A	SA
USE1	E-procurement services are helpful in managing my	**1**	**2**	**3**	**4**	**5**
USE2	E-procurement is useful for bill payment.	**1**	**2**	**3**	**4**	**5**
USE3	E-procurement simplifies contract tasks.	**1**	**2**	**3**	**4**	**5**
USE4	The features offered by E-procurement are valuable.	**1**	**2**	**3**	**4**	**5**
USE5	E-procurement enhances my contract application efficiency.	**1**	**2**	**3**	**4**	**5**
USE6	I rely on E-procurement for bidding.	**1**	**2**	**3**	**4**	**5**

(ii) Perceived ease of use

	Statements	SD	D	NS	A	SA
	E-procurement ……					
pe1	…. is clear and easy to understand.	**1**	**2**	**3**	**4**	**5**
Pe2	…. requires less effort.	**1**	**2**	**3**	**4**	**5**
Pe3	…. is flexible.	**1**	**2**	**3**	**4**	**5**
Pe4	…. requires less time.	**1**	**2**	**3**	**4**	**5**
Pe5	…. is more transparent.	**1**	**2**	**3**	**4**	**5**

Attitude toward E-procurement

	Statement	SD	D	NS	A	SA
	E-procurement ……					
at1	…. is important	**1**	**2**	**3**	**4**	**5**
at2	…. is beneficial	**1**	**2**	**3**	**4**	**5**
at3	…. is reasonable.	**1**	**2**	**3**	**4**	**5**
at4	…. is a good thing.	**1**	**2**	**3**	**4**	**5**
at5	…. is a right thing to do.	**1**	**2**	**3**	**4**	**5**

Section D: E-procurement adoption

Kindly tick the appropriate response from the indicators based on your rating; (1) Strongly disagree (SD) (2) Disagree (D) (3) Neutral (N) (4) Agree (A) (5) Strongly agree (SA)

Rate of Use (ROU)

CODE	STATEMENT	SD	D	NS	A	SA
ROU1	I use E-procurement services frequently.	1	2	3	4	5
ROU2	I make most of my application through E-procurement.	1	2	3	4	5
ROU3	E-procurement is my primary method for bid application	1	2	3	4	5
ROU4	I rely on E-procurement for most of my bidding application.	1	2	3	4	5
ROU5	I prefer using E-procurement over visiting a physical branch.	1	2	3	4	5
ROU6	I find E-procurement convenient for my bidding application	1	2	3	4	5
ROU7	Overall, I am satisfied with my usage of E-procurement.	1	2	3	4	5

Thank you so much