THE ROLE OF CHANGE MANAGEMENT IN ADOPTING E-PROCUREMENT IN UGANDA: A CASE OF THE NATIONAL FORESTRY AUTHORITY (NFA)

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DECLARATION

I, Musiimenta Patricia Essy, declare that this dissertation entitled "The role of change management in adopting E-procurement in Uganda, a case of the National Forestry Authority (NFA)" is my original work and has not been submitted to any other university or institution of higher learning for the award of a degree or any other academic qualification.

This dissertation has been submitted with the approval of my supervisor.

Signature; 

Name; Musiimenta Patricia Essy

Date; 6/05/2026

APPROVAL

This is to confirm that this research dissertation by MUSIIMENTA PATRICIA ESSY, registration S23B12/029 entitled "The role of change management in adopting E-procurement in Uganda, a case of the National Forestry Authority (NFA)**"** has been submitted for examination with the approval of the undersigned university supervisor.

Academic Supervisor

Name: NAGAWA PAMELA

Signature: 

Date: 6/05/2026

DEDICATION

This research work is dedicated to my favourite dad Mampati Eliab. Whose support, encouragement, and understanding during all my academic years have been a compelling factor and my strength. Your patience, love, and faith in my skills made me stick to reaching this milestone.

This work is also dedicated to my dear sister, Nakazzi jane , who has always loved me, encouraged and supported me throughout my studies. The moral support and kindness of yours played an important role in the successful fulfillment of this work.

Lastly, this research is dedicated to my beautiful and loveable mom. The support you gave me, the love you showed me, and the happiness you provided me in my life gave me the strength to continue moving on even when I was faced with a difficult situation. I deeply love each of you and this success is as much yours as it is mine.

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ABSTRACT

The adoption of electronic procurement (e-procurement) systems is a key public sector reform aimed at improving efficiency, transparency, and accountability. However, many public institutions in Uganda continue to experience challenges in fully adopting these systems due to organizational and human-related factors. This study examined the role of change management in the adoption of e-procurement systems at the National Forestry Authority (NFA), Uganda. The study specifically focused on communication, training and user support, and stakeholder engagement.

Guided by Kotter's 8-Step Change Model, the study employed a cross-sectional research design using a mixed-methods approach. Data were collected through questionnaires and key informant interviews and analyzed using descriptive and inferential statistical methods. The findings revealed a positive relationship between change management practices and the adoption of e-procurement systems. Effective communication, adequate training, and active stakeholder engagement were found to enhance system utilization, efficiency, transparency, and user satisfaction. The study concludes that effective change management is critical for the successful adoption of e-procurement systems in public sector organizations.

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CHAPTER ONE

INTRODUCTION

1.0.Introduction

This chapter introduces the background of the research, problem statement, aims and objectives of the study, research questions, scope of the study, significance of the studies and the conceptual framework.

1.1 Background of the Study

Adoption of e-procurement is defined as the process whereby organizations move from traditional procurement to electronic platforms for sourcing, tendering and payments (Vaidya et al., 2019). It promotes transparency, efficiency, and accountability in the public sector. The OECD (2025) notes e-procurement is a central feature of modern public financial management reforms and supports good governance. Internationally, the successful implementation of e-procurement systems led to lower administrative costs, improved competition among suppliers, and improved transparency (World Bank, 2021; Belisari et al., 2020). E-payments and e-procurement portals reduced cycle time when coupled with change management practices like management commitment and training (Swedi, 2024). However, in developing countries, adoption was limited by the lack of ICT literacy, change reluctance and lack of readiness (Chigudu, 2022). The UN E-Government Survey (2024) also highlighted the need for a focus on digital readiness and human capacity to sustain digitization of procurement processes.

1.1.1 Historical background

Procurement systems evolved gradually from paper-based and manual to highly integrated and electronic systems. The advent of EDI in the 1970s and 1980s enabled the electronic communication of purchase orders, invoices, and delivery notices, thus eliminating the lag in information delivery and reducing paperwork errors due to manual input of information (Vaidya et al., 2019). In the 90s, technological advances brought about electronic catalogues and early e-marketplaces to increase access to a broader supplier base and standardize procurement data to enhance efficiency (Thai, 2020).

In the early 2000s procurement was integrated with financial management and inventory control using ERP systems that increased transparency, real-time decision making and accountability within the organization (Hawking & Stein, 2021). Theoretically, in 2010 many governments around the globe formalized e-procurement systems to improve transparency, eliminate corruption and maximize value for money in public expenditure (World Bank, 2021). This resulted in a rise of 2020 procurement systems that are cloud-based, use artificial intelligence and analytics to facilitate predictive sourcing, contract management and sophisticated supplier performance evaluation (OECD, 2025).

In Africa, the parallel evolution in procurement digitalization was seen. Ghana, Kenya, and South Africa began the journey to implement an e-procurement system to improve governance and ensure seamless public financial management (Sakutemba, 2024). In Kenya the IFMIS and CSD were introduced in South Africa in the 2010s and which transformed public procurement in their respective jurisdictions by improving the efficiency of supplier registration, compliance monitoring and procurement audit trails (Chigudu, 2022). These developments reflected the continental transformation from the conventional manual procurement processes to integrated, digital, automated procurement systems designed to facilitate transparency and efficiency in government operations.

In Uganda, the journey towards digitization of procurement reflected the global and regional changes. Manual procurement methods were applied in the government until the Public Procurement and Disposal of Public Assets Authority (PPDA) took the initiative to make systematic reforms in the early 2000s. This later resulted in the establishment of the Government Procurement Portal (GPP), and subsequently the Electronic Government Procurement system (e-GP) in 2021 with the aim of automating the processes of tendering, suppliers' registration, and contract management, PPDA (2021). This demonstrated the phases Uganda has undergone from manual processes to computer platforms, catching up with other countries in the region to modernize public procurement, according to MAPS (2015). This provided a historical foundation for the analysis of recent digital reforms and how procurement processes have continued to evolve in government agencies such as the National Forestry Authority.

1.1.2 Theoretical background

This research was based on Kotter's 8-Step Change Model, a model by John P. Kotter (1996) that described how organizations successfully plan, execute, and institutionalize change. It identified eight interconnected and sequential stages, which included establishing a sense of urgency, creating a guiding coalition, developing a vision and strategy, communicating the change vision, empowering employees for broad-based action, generating short-term wins, consolidating gains and producing more change, and anchoring new approaches in the culture (Laig & Abocejo, 2021). Taken together, these provided a framework to understand how change is managed in organizations, especially in the context of deploying new systems and technologies (such as e-procurement) in public sector organizations (Haas et al., 2019).

The model was constructed on the premise that organizational change is more likely to be successful if employees understand the need for change, support the change vision and are sufficiently empowered to be involved in the change process (Trawick & Carraher, 2023). It presumed that change leadership, communication and ongoing reinforcement of new behaviors are key for successful change implementation. Kotter's model also assumed that change is sustainable if the new practices are institutionalized in the organizational culture, processes, and practices, and through this, resistance is reduced, and acceptance is enhanced among organizational members (Magnúsdóttir, 2018).

The strength of Kotter’s 8-Step Change Model was its managerial approach to change. It gave managers a clear direction on how to engage employees, gain buy-in from stakeholders, and create a sense of urgency among employees (Nestorenko et al., 2025). It focused heavily on leadership, communication, involvement, and reinforcement and was thus applicable in providing a good explanation of how change management practices such as communication and training strategies, and stakeholder engagement affect technology adoption. Consequently, it provided a sound theoretical basis for understanding how change management strategies such as communication, training and stakeholder involvement could increase readiness, minimize resistance, and facilitate successful adoption of e-procurement systems in the public sector (Laig & Abocejo, 2021).

In this study, Kotter's 8-Step Change Model offered a sound theoretical framework for examining how change management practices (such as communication, training and involvement) influenced the adoption of e-procurement systems at the National Forestry Authority (NFA) (Nestorenko et al., 2025). The model's focus on guiding coalitions, communication, empowerment, and reinforcement provided insight into how change leaders can minimize resistance, enhance digital skills, and foster a culture of transparency and accountability in public procurement (Trawick & Carraher, 2023).

1.1.3 Conceptual background

The study focused on change management as the independent variable and e-procurement adoption as the dependent variable. Change management involves systematic approaches, practices and actions by leaders and managers to prepare, support and direct individuals and organizations through the change process, especially when it comes to new information technology and work system (Chigudu, 2022). Within public sector digital reforms, change management was evident in effective communication, training and end-user support, stakeholder engagement and organizational readiness for change (Burnes, 2017). Change management practices were found to be important in employee acceptance, resistance, and success of reform agendas such as procurement reforms in African and East African public organizations (Kimanzi & Senaji, 2022). In the context of Uganda's on-going digital transformation under NDP III and the national e-Government Procurement (e-GP) agenda, change management was essential in ensuring the successful transition of manual to electronic procurement systems in public institutions like the National Forestry Authority (Ministry of ICT & National Guidance, 2022; PPDA, 2021).

E-procurement adoption related to the degree to which electronic procurement systems were accepted and embraced, used, and integrated into procurement processes to improve efficiency, transparency, and accountability (Belisari et al., 2020). In government institutions, e-procurement adoption was often measured through usage, efficiency, transparency, and satisfaction, which in turn led to better procurement processes and governance outcomes (Hawking & Stein, 2021). Research in Africa has shown that despite significant government investments in e-procurement systems, adoption rates have been inconsistent due to human,

organizational and change-related factors instead of technical constraints (Munyua & Muturi, 2022). In Uganda, reports by the Office of the Auditor General and international agencies had indicated procurement inefficiencies and compliance concerns, revealing a need for change management to achieve the desired outcomes of e-procurement reforms (Office of the Auditor General, 2023; OECD, 2025). Thus, the role of change management in e-procurement adoption at the National Forestry Authority was vital to enhance the efficiency, transparency, user trust, and compliance of public procurement in line with national and global digital governance agendas (World Bank, 2021; UNDESA, 2024).

1.1.4 Contextual background

The National Forestry Authority (NFA) is part of the Ugandan forestry sector under the Ministry of Water and Environment and is governed by the National Forestry and Tree Planting Act (2003). It was responsible for the management of Uganda's 506 Central Forest Reserves (CFRs) totalling approximately 1.26 million hectares to support sustainable forestry growth and conservation (NFA, 2024). Forestry contributes about 3.5% to Uganda's GDP and provides more than 1.3 million jobs, playing a crucial role in Uganda's economic and environmental development (UBOS, 2024). As a government entity, NFA was bound by the Public Procurement and Disposal of Public Assets (PPDA) Act (2003) that advocated for efficiency and transparency in the use of public funds. The Authority's operational reform, including its commitment to digital transformation, was in line with the government's priorities for economic development as outlined in its development plans such as Vision 2040 and the Third National Development Plan (NDP III) (National Planning Authority [NPA], 2020; Ministry of ICT & National Guidance, 2022).

Despite this critical role, NFA faced numerous institutional and technological factors that limited the full implementation of the systems in the e-GP and Government Procurement Portal (GPP). Poor communication by the leadership, inadequate ICT infrastructure, and lack of user training was one of the key barriers identified in the adoption of the electronic procurement process in studies (Munyua & Muturi, 2022; MAPS, 2025). AOG (2023) reports also highlighted anomalies in procurement processes and deferrals in project implementation, pointing to the presence of change resistance at NFA. Despite the government interventions and donor-assisted programs,

which improved policy settings and system access, the change management process, particularly communication, training and stakeholder involvement was weak at NFA. This revealed the need for this study that set out to explore how change management impacted the adoption of e-procurement systems at NFA and the lessons learnt to lead the digital transformation agenda in the Ugandan public service.

1.2 Problem statement

Internationally, e-procurement implementation has revolutionized government procurement processes to enhance efficiency, transparency, and cost savings. Europe includes nations like Italy that have successfully integrated e-procurement with over 90% of government tenders being awarded electronically (OECD, 2025). However, research identified recurring issues of user acceptance, disjointed IT integration, and lack of effective change management in the adoption process (Belisari et al., 2020). These challenges revealed that technological infrastructures alone are not enough for the long-term adoption of e-procurement systems without human and organizational readiness.

In Africa, e-procurement systems were adopted in countries like Kenya and Ghana to enhance transparency and curb corruption. But its implementation was inconsistent because of insufficient ICT infrastructure, training, and leadership support (Chigudu, 2022; Sakutemba, 2024). For example, in Kenya, the Integrated Financial Management Information System (IFMIS) was still. being delayed and having outages because of the absence of change management and engagement of the staff. These Experiences in Africa indicated that the effectiveness of e-procurement reforms depended on more than just digital. but not only technology but change management. E-procurement in Uganda came in the form of Electronic Government Procurement (e-GP). system and the Government Procurement Portal (GPP) by the Public Procurement and Disposal of Public Assets Authority (PPDA) to enhance the efficiency and transparency of procurement (PPDA, Public Assets Authority (PPDA) to enhance efficiency and transparency of procurement (PPDA, 2021). However, the MAPS assessment report (2025) has shown that less than 50 percent of the public entities have. effectively implemented these systems because of low level of digital literacy, no motivation and effective staff. sharing of change efforts (MAPS, 2025). The Office of the Auditor General (2023) also reported that there

were persistent delays in procurement process and that there was low compliance implying that The adoption of e-procurement in Uganda was not yet providing the policy outcomes as expected.

Academics mostly focused on the technical, infrastructural and policy aspects of e-procurement adoption, highlighting the importance of ICT infrastructure, policy support and training (Vaidya et al., 2019; Luo et al., 2023). However, there was little research on the organizational-behavioral aspects of adoption. This research aimed to address this gap by using Kotter's 8-Step Change Model to analyze the impact of change management practices on the e-procurement adoption by the National Forestry Authority (NFA).

1.3 Objectives of the study

1.3.1 General objective

The general objective of the study is to examine the relationship between change management practices and E-procurement Systems at National Forestry Authority (NFA), Uganda.

1.3.2 Objectives of the study

i. To examine the relationship between change management practices and e-procurement systems at NFA.
ii. To examine the relationship between communication and the adoption of e-procurement systems at the NFA.
iii. To examine the relationship between training and user support and E-procurement systems at NFA.
iv. To examine the relationship between stakeholder engagement and E-procurement at NFA.

1.4 Research questions

i. What was the relationship between change management practices and e-procurement systems at NFA?
ii. What was the relationship between communication and adoption of E-procurement at NFA?
iii. What was the relationship between training and user support and E-procurement at NFA?

iv. What was the relationship between stakeholder engagement and E-procurement adoption at NFA?

1.5 Scope of the study

1.5.1 Geographical scope

The study was undertaken at the National Forestry Authority (NFA) headquarters in Kampala and in some of the regional offices in Uganda. NFA was selected as one of the public agencies currently using the Electronic Government Procurement system (e-GP) under the Public Procurement and Disposal of Public Assets Authority (PPDA) policy.

1.5.2 Content scope

The research sought to understand the association between change management and adoption of e-procurement systems at NFA.

1.5.3 Time scope

This study was conducted between September and December 2025, which coincides with the systems and consolidation phase of the e-GP system in public institutions.

1.6 Significance of the study

This research contributed to the efforts by the National Forestry Authority (NFA) and other government agencies to understand how change management practices such as employee training, and communication improve the adoption of e-procurement systems by offering insights on how to overcome resistance from employees, improve system use and ensure accountability.

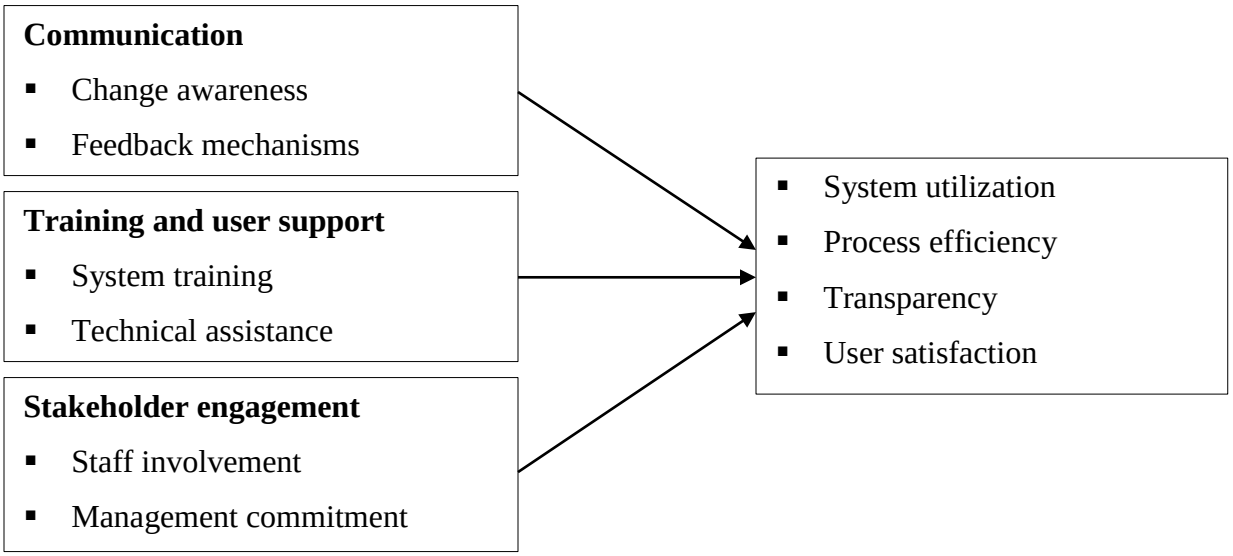
For policy makers, particularly in the Public Procurement and Disposal of Public Assets Authority (PPDA) and the Ministry of Finance, Planning and Economic Development (MoFPED) this research provided empirical insights to guide policy development and reform in the e-procurement process in Uganda by emphasizing the need for incorporating change management approaches in national e-procurement strategies and capacity building initiatives.

For researchers and academics, this study added to the theoretical knowledge of public procurement and change management as well as widened the debate about the role of behavioral and managerial factors on technology adoption in developing countries such as Uganda.

1.7 Conceptual framework

Independent variable **Dependent variable**

Change Management **Adoption of E-procurement**



Source: *Adapted from Kotter (2012) and Tornatzky & Fleischer (1990), as modified by the researcher.*

This study defined change management, measured in terms of communication, training and user support, and stakeholder involvement as the independent variable and adoption of e-procurement in terms of system usage, process efficiency, transparency and user satisfaction as the dependent variable.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter is on other studies from other literatures. It is vital to examine in depth other research on the role of change management in the adoption of e-procurement and review some of the literature relevant to the study to compare, confirm and uncover differences. As such, the chapter is intended to be a review of the different literatures deemed pertinent to the study.

2.1 Theoretical review

2.1.1 Kotter's 8-Step Change Model

This study is built on the Kotter's 8-Step Change Model, a model developed by John P. Kotter (1996), that offers a holistic description of how change works in organizations that successfully manage change. The model outlines eight interdependent and sequential stages in creating a change: establishing a sense of urgency, building a guiding coalition, creating a vision and strategy, communicating the change vision, empowering employees for broad-based action, generating short-term wins, consolidating gains, and producing still more change, and anchoring new approaches in the culture (Laig & Abocejo, 2021). These steps provide a holistic framework for facilitating change in organizations through leadership commitment, staff participation and ongoing reinforcement of the new processes and behaviors (Laig & Abocejo, 2021). In public sector organizations where reform processes may involve complex processes and multiple stakeholders, the Kotter model provides a roadmap for technological change such as implementing e-procurement systems (Haas et al., 2019).

It is built on the premise that change is more likely to be successful if employees understand the need for change, support the change vision, and could actively participate in the change process (Trawick & Carraher, 2023). It presumes strong leadership commitment is pivotal to driving change through the establishment of a direction, allocation of resources, and demonstration of behaviors. Furthermore, Kotter's theory assumes that clear communication and ongoing engagement help reduce uncertainty and resistance to change in the process. The theory also

assumes that change is sustained when new behaviors, skills and processes are institutionalized into the organization's culture, structures, and practices, improving acceptance and acceptance by organizational members (Magnúsdóttir, 2018).

The strength of Kotter's 8-Step Change Model is its pragmatic and operational approach to handling change. The model offers guidance to managers on how to engage employees, engage stakeholders, and keep the momentum going (Nestorenko et al., 2025). Its focus on leadership, communication, engagement, and reinforcement makes it a valuable model to explain the impact of change management on technology adoption, such as communication strategies, training, and stakeholder engagement. With its emphasis on both human and structural factors, the model provides a sound theoretical basis to examine how structured change management programs increase organizational readiness, lower resistance, and contribute to the successful adoption of e-procurement systems in public sector organizations (Laig & Abocejo, 2021).

In the context of this research, Kotter's 8-Step Change Model offers a strong conceptual framework for explaining how change management practices (communication, training, and stakeholder engagement) influence the successful implementation of e-procurement systems at the National Forestry Authority (NFA) (Nestorenko et al., 2025). The focus on creating a guiding coalition, communicating the change vision, enabling action, and institutionalizing new behaviors helps understand how change leaders can mitigate resistance, increase digital readiness, and promote acceptance of e-procurement systems. As such, the model helps explain how effective change management can foster transparency, accountability, and efficiency in public procurement processes at NFA (Trawick & Carraher, 2023).

2.2 Conceptual review

Change management has been extensively debated in the literature of organizations and the public sector as a formal process of preparing, supporting, and facilitating people and organizations to transition in ways that enhance performance and respond to shifts in the environment or technology. Burnes (2017) defines change management as a systematic process that includes leadership activities, communication, and behavioral alignment to facilitate organizational change. Similarly, Marita et al. (2022) considers change management to be a preparedness-focused process that aligns people, processes, and systems to enable new working

practices, especially in public procurement reforms. While some authors highlight change management as a structured and linear process driven by leadership, others view it as a continuous and iterative practice influenced by organizational culture and employee views (Burnes, 2017; Luo et al., 2023). These perspectives indicate that change management is a technical and social process, encompassing changes in structures and people's attitudes and behaviors.

Research shows that change management has been operationalized in different ways in different contexts and studies. Internationally, it is considered as a key factor in digital transformation and the uptake of e-procurement, with researchers emphasizing its influence on minimizing resistance and enhancing system acceptance (Nandankar & Sachan, 2020; Mavidis & Folinas, 2022). Within the African public sector, change management is associated with reform outcomes in procurement systems such as efficiency, accountability, and transparency (Chigudu, 2022). In Uganda, research by Basheka et al. (2012) and Ahimbisibwe et al. (2018) shows that poor change management practices such as lack of staff participation and training have limited the effective implementation of e-procurement reforms and the shift from manual to electronic systems. Recent evidence from Uganda suggests that institutions that prioritize communication, training and stakeholder involvement are more likely to have successful implementation of e-procurement reforms and better procurement performance (Abaine et al., 2024).

Researchers have identified several common dimensions to measure change management in organizational and public sector reforms. For instance, Kimanzi and Senaji (2022) highlight communication, training, support from leadership, and stakeholder engagement as key parts of the change management process that explain the impact of change initiatives on organizational performance. Likewise, Munyua and Muturi (2022) highlight communication clarity, employee training and user support, and stakeholder involvement as key aspects of change management when adopting new technologies. Communication refers to how information about change is communicated, understood, and assimilated by employees; training and user support capture the extent to which employees are trained and supported to use new systems; while stakeholder engagement captures the degree of involvement, commitment and ownership by internal and

external stakeholders impacted by change. These aspects capture the role of change management in promoting acceptance, readiness, and continuing use of new technologies like e-procurement.

In this research, change management will be assessed in terms of communication, training and user support, and stakeholder engagement. Communication will measure the dissemination of timely, transparent, and consistent information to NFA staff about the purpose, process and benefits of e-procurement changes, signifying awareness, and comprehension of change (Burnes, 2017; Abaine et al., 2024). Training and user support will assess the level of capacity building, system training and technical support to users, showing employees' knowledge and skills in using the e-procurement system (Basheka et al., 2012; Kimanzi & Senaji, 2022). Stakeholder engagement will assess the extent to which employees were involved, management was committed, and consultation was undertaken during the change process, demonstrating the degree of ownership and support for change in the organisation (Munyua & Muturi, 2022; Chigudu, 2022). These factors, collectively, will show how change management plays a role in the successful adoption of e-procurement through acceptance, resistance and sustained organisational change at the National Forestry Authority.

2.2.1 Change management

2.2.2 Electronic Procurement

E-procurement has been defined as the application of electronic tools and information technologies to manage procurement processes such as sourcing, tendering, ordering, contracting and payments (Thai, 2020). Some researchers view e-procurement as a technological enabler that automates and digitizes procurement activities to increase efficiency (Oppong, 2020; Hawking & Stein, 2021). Others take a systemic approach, where e-procurement is seen as a socio-technical reform that transforms procurement processes, governance structures, and buyer-supplier relations (Belisari et al, 2020; Chan & Owusu, 2022). In this view, e-procurement is not just digital but rather an approach to change the nature of transparency, accountability, and information management within public organizations. These varied perspectives reveal that e-procurement incorporates both technological and organizational change aspects that influence procurement.

E-procurement has been used to describe and explain procurement reforms and improvements in various institutional and geographic settings. In the European and international public sectors, the research points to e-procurement as a governance mechanism to promote competition, curb corruption, and improve adherence to procurement rules and laws (Gascó et al., 2018; Bobowski & Gola, 2018). In African public sectors, e-procurement is frequently associated with public administration reforms for better efficiency, fiscal integrity, and service delivery (Sakutemba, 2024; Maepa et al., 2023). In Uganda, empirical studies have demonstrated that e-procurement has been adopted to overcome the problems of manual procurement systems such as delays, lack of audit trail and transparency (Oppong, 2020; Thai, 2020). But evidence shows that although a policy exists, the extent of e-procurement adoption differs among public institutions, with the results of procurement practices dependent on the extent of organizational readiness and system usage (Sakutemba, 2024).

Literature shows empirical evidence of researchers operationalizing e-procurement adoption through various dimensions. System use is an important dimension, reflecting the rate at which procurement staff consistently and effectively use electronic systems for procurement transactions (Vaidya et al., 2019; Hawking & Stein, 2021). Another is procurement efficiency, which relates to the efficiency of procurement cycle, cost of procurement transaction, and accuracy of procurement processes through electronic systems (Ali, 2025; Odike et al., 2025). Transparency is also often highlighted, as it relates to the provision of procurement information, traceability of business transactions and elimination of discretionary practices through electronic audit trails (Gascó et al., 2018; Thai, 2020). Lastly, user satisfaction has been applied to measure attitudes towards the ease of use, trustworthiness, and usefulness of the system among procurement officers and vendors (Belisari et al., 2020; Shahin et al., 2022). These aspects together form a holistic framework to measure the success of e-procurement adoption.

For this research, e-procurement adoption will be assessed through four criteria: system utilization, process efficiency, transparency, and user satisfaction. System usage will measure the extent and way in which NFA employees interact with the e-procurement system to carry out procurement activities, showing the extent to which, the system has been adopted, rather than simply installed (Vaidya et al., 2019; Hawking & Stein, 2021). Process efficiency will assess the

extent to which e-procurement has streamlined procurement processes, administrative burdens, and transaction costs, showing efficiency gains (Ali, 2025; Odike et al., 2025). Transparency will assess the access to procurement information, audit trails and visibility of procurement processes using the electronic system, indicating improved accountability (Thai, 2020; Gascó et al., 2018). User satisfaction will assess the perceptions of system users on ease of use, system reliability and overall satisfaction with the e-procurement system, suggesting acceptance and sustainability (Belisari et al., 2020; Shahin et al., 2022). Taken together, these measures are aimed at showing the impact of e-procurement on efficiency, accountability, and procurement performance at the National Forestry Authority (NFA).

2.2 Empirical review

2.2.1 Change management practices and e-procurement systems

Abaine et al (2024) in their research looked at the impact of change management on e-procurement reforms in Uganda and found that effective communication, ongoing training, and stakeholder involvement improve e-procurement adoption and use, showing that change management serves as an enabling factor for e-procurement systems. The research also demonstrated that, through effective communication, resistance to change is minimized, increasing system usage and acceptance of e-procurement platforms, thereby connecting human behavior to technology systems (Abaine et al., 2024). Likewise, Marita et al. (2022), in a bibliometric study, showed that change readiness and managerial support are key factors in explaining the successful adoption of digital procurement systems, suggesting that change management drives institutional readiness for e-procurement reforms. The interplay between change management and e-procurement adoption was also seen in training programs which boosted users' skills and supported system use and process effectiveness, showing a symbiotic relationship between change management and e-procurement effectiveness (Marita et al., 2022).

Kimanzi and Senaji (2022) examined change management in public sector and found that change management, through management support, employee participation and communication, plays a critical role in the successful adoption of digital systems, such as e-procurement, by demonstrating that change management affects the acceptance of technology. They concluded that when training and support are provided to users, employees have a positive attitude toward

system acceptance, which in turn increases transparency and efficiency of the system (Kimanzi & Senaji, 2022). Likewise, Luo, Huang, and Zhang (2023) performed a meta-analysis of factors affecting technology adoption and readiness for change and found that effective change management practices improve readiness and increase usage and satisfaction levels of the system. The research highlighted that readiness plays a mediating role between change management and e-procurement adoption, revealing that these factors are interrelated and complement each other to drive e-procurement success (Luo et al., 2023).

Munyua and Muturi (2022) examined the factors affecting e-procurement adoption in the East African public sector and concluded that change management strategies, including staff training and stakeholder involvement in e-procurement processes, play a crucial role in e-procurement adoption and effectiveness. The research proved that effective change management strategies increase user trust and confidence in e-procurement systems, leading to higher adoption and efficiency in procurement processes (Munyua & Muturi, 2022). Similarly, Maepa et al. (2023) found readiness factors such as effective communication and staff capacity building to be important in e-procurement adoption in South African government departments and confirm the change management role in digital transformation. Their research demonstrates that change management practices establish a conducive environment for e-procurement systems to operate and connect information technology, organizational behavior, and procurement processes (Maepa et al., 2023).

Chan and Owusu (2022) examined current e-procurement adoption strategies and concluded that change management practices such as stakeholder engagement and ongoing training are crucial for the ongoing management of e-procurement systems in public institutions. The research observed that in the absence of change management, e-procurement systems are underutilized, inefficient, and underperform, revealing a significant relationship between organizational change management and e-procurement system performance (Chan & Owusu, 2022). Similarly, Sakutemba (2024) studied e-procurement reforms in African public institutions and concluded that proactive change management strategies that align institutional culture with e-procurement aspirations are the key to adoption. The study concluded that communication, training, and stakeholder engagement contribute to procurement transparency and accountability, revealing the

dynamic relationship between change management practices and e-procurement adoption for improving public administration efficiency (Sakutemba, 2024).

2.2.2 Communication and the adoption of e-procurement systems

In their research, Belisari et al. (2020) explored the adoption of e-procurement in public organizations and discovered that active and constant internal communication is a significant factor that would increase the level of e-procurement adoption in the organization. The research has shown that communication elucidates the purpose and anticipated benefits of the system, thus eliminating uncertainty and resistance among the users, further contributing to the use and acceptance of the system (Belisari et al., 2020).

In a similar approach, Oppong (2020) set up that appropriate communication strategies throughout the implementation of e-procurement enhance coordination among the actors of procurement, resulting in a smooth system integration and enhanced operational efficiency. These results indicate that the adoption of e-procurement systems is linked to communication and its effect on user confidence; hence, the ultimate outcome of these processes is sustained use and institutionalizing e-procurement systems (Oppong, 2020).

The review of electronic procurement adoption by Nandankar and Sachan (2020) depicted the use of communication as an important enabler that connects the organizational readiness to the system usage and performance results. The authors discovered that a high frequency of communication about the functionality of the system and policy changes improves knowledge and skills among the users and positively affects adoption and continued use of the e-procurement systems. In a similar study, Mavidis and Folinas (2022), in their review of the development of e-procurement 3.0 to 4.0, highlighted that open communication between management, suppliers, and users are the key to interoperability and trust of the system, which is essential in higher levels of adoption. The overall studies demonstrate that e-procurement adoption is driven by communication as it adjusts the changes in technology to the expectations of users, thereby enhancing transparency, efficiency, and system acceptability

(Nandankar and Sachan, 2020; Mavidis and Folinas, 2022). In their discussion of the role of e-procurement in supply chains, Shahin and Shahin (2022) concluded that communication is the

main factor in integrating procurement systems with supply chain actors to improve the effectiveness of procurement systems in supply chains. The research revealed that good communication leads to real time sharing of information, and this improves coordination and trust, and as such, enhances the willingness of the users to rely on the e-procurement systems. To support this, Thai (2020) found that communication frameworks included in the reform of the public sector contribute to alignment of the procurement policy with the digital platforms and helps to reduce the implementation gap. These results imply that communication enhances the connection between the intentions of policies and the technological implementation, making the adoption of e-procurement a function of the information flow and institutional alignment (Shahin et al., 2022; Thai, 2020).

Hawking and Stein (2021) studied the concept of ERP and procurement integration and discovered that the communication between the technical team and end users is improved, which in turn improves the compatibility of the system and its acceptance by users, which directly leads to the adoption of the e-procurement system. The research revealed that a continuous feedback system enhances the usability of the system, resulting in increased satisfaction and further maintenance of the e-procurement systems usage. Similarly, Ali (2025) determined that organizations that focus on communication when implementing e-procurement have better organizational performance through increased transparency, accountability, and user satisfaction. The combination of these studies confirms the mutually reinforcing relationship between communication and e-procurement adoption, in that effective communication strengthens the engagement level of users, which, in turn, positively influences the level of system use and the performance of procurements (Hawking and Stein, 2021; Ali, 2025).

2.2.3 Training & user support and the adoption of e-procurement systems

In the study, Mohungoo et al. (2020) provided a systematic literature review of the challenges in the study. During the deployment of the e-procurement system in the country and discovered that the deficiency of user training has a significant role to play. Contribution to derailing the implementation of the system by low level technical skills and confidence of the user. The research reveals that as long as the training is comprehensive and continuous users would be more conversant with system. Functionality, which will improve the use of the system and the

resistance to change. Similarly, Vaidya et al. (2019) demonstrated that two success factors that influence the adoption are training and user support. of e-procurement in the government. These studies demonstrate the importance of training which drives adoption through skills improvement and preparation, while user support supports training through problem solving, creating a symbiotic relationship between proficiency and adoption, and continuous use of e-procurement systems (Mohungoo et al., 2020; Vaidya et al., 2019).

Chigudu (2022), who studied the digital transformation of African public procurement reforms highlighted the key role of employee training and technical support mechanisms in driving public organizations from paper-based to electronic procurement systems. Training was highlighted as a key factor in improving digital literacy and users' interaction with e-procurement systems, so enhancing adoption rates and system integrity. Likewise, Muriithi and Crawford (2019) noted that human factors - capacity building and post-implementation user support - significantly affect public acceptance of digital reforms. This research shows that training increases users' proficiency in using e-procurement systems, which enhances adoption, while user support helps users overcome problems, and continues to support usage, showing how the two variables are intricately linked to enhance adoption (Chigudu, 2022; Muriithi & Crawford, 2019).

Raghul et al. (2024) examined e-procurement optimization in supply chains and concluded that advanced training helps users leverage e-procurement system capabilities, leading to improved efficiency and adoption. The study also demonstrated that ongoing user support assists users in adapting to system and process changes and upgrades, which helps maintain user adoption and system performance over time. Similarly, Odike et al. (2025) demonstrated that training procurement personnel in the use of electronic systems has a positive effect on accuracy, transparency, and compliance in construction procurement processes. These findings confirm that training helps users acquire the skills needed to embrace e-procurement, while user support promotes confidence and consistency in the use of the system, confirming a symbiotic relationship among the variables (Raghul et al., 2024; Odike et al., 2025).

Gascó et al. (2018) found that the absence of training and user support are significant factors hindering e-procurement adoption in European public institutions. They found that specific

training programs enhance user skills, thereby building confidence in the system and promoting adoption. Similarly, in Uganda, Ahimbisibwe et al. (2018) reported that continuous user support and training were key to enabling the transition from manual procurement practices to e-procurement systems. These studies show that training and user support combine to drive e-procurement adoption by providing technical skills and ongoing support which, in turn, connects user readiness to system usage and institutionalization of e-procurement systems (Gascó et al., 2018; Ahimbisibwe et al., 2018).

2.2.4 Stakeholder engagement and the adoption of e-procurement systems

Abaine et al. (2024) in their research examined the impact of change management on e-procurement initiatives in Uganda and concluded that stakeholder engagement is crucial in improving e-procurement adoption through the creation of ownership and integration with business goals. It found that active stakeholder engagement, such as with suppliers, procurement officers, and management, in decision-making processes enhances the implementation of e-procurement systems and adherence to e-procurement procedures. Likewise, Oppong (2020) found that stakeholder involvement ensures the design and implementation of e-procurement systems addresses the needs of users, which in turn reduces resistance and enhances system adoption. These research findings show that stakeholder engagement contributes to adoption by fostering collaboration, feedback, and incorporating varied viewpoints in system design, and that there is a symbiotic relationship between engagement and usage of the system (Abaine et al., 2024; Oppong, 2020).

Vaidya et al. (2019) identified key factors of e-procurement success and observed that the involvement of internal and external stakeholders, including suppliers, IT professionals, and regulatory authorities, improves the relevance, ease of use, and trust in e-procurement systems. This study suggested that continuous communication with stakeholders ensures feedback and concerns are addressed, building trust in the system and facilitating adoption. Similarly, Mohungoo et al. (2020) highlighted that engaging key stakeholders in training, pilot testing and system evaluation processes limits errors during implementation and creates a shared ownership culture. These insights reveal that stakeholder engagement and e-procurement adoption are bidirectional, with engagement affecting user readiness and acceptance of e-procurement

systems and adoption reinforcing the need for ongoing stakeholder engagement (Vaidya et al., 2019; Mohungoo et al., 2020).

Odike et al. (2025) examined the impact of e-procurement on construction projects in Nigeria and showed that stakeholder engagement in procurement planning, supplier selection, and contract management ensures transparency, minimizes disputes, and promotes swift adoption of e-procurement. Likewise, Raghul et al. (2024) found that stakeholder engagement enables co-design of system features to align with operational needs, thereby improving its efficiency and adoption. These findings show how engagement sets up feedback loops where stakeholders' feedback supports system improvements, which in turn, increases adoption and foster engagement in a mutually reinforcing relationship between the variables (Odike et al., 2025; Raghul et al., 2024).

Ahimbisibwe et al. (2018) on Uganda's shift from manual to e-procurement found that stakeholder participation in system awareness, workshops and training improved e-procurement adoption by allaying fears, and misconceptions and building technical skills. Likewise, Basheka et al. (2012) demonstrated that stakeholder involvement in procurement reforms involving suppliers and internal staff members enhances accountability, trust and commitment to e-procurement systems. These research works highlight that stakeholder engagement and e-procurement adoption are interconnected, with stakeholder engagement enabling acceptance and e-procurement adoption reinforcing the need for further engagement, which in turn leads to improved organizational efficiencies and procurement efficiencies (Ahimbisibwe et al., 2018; Basheka et al., 2012).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes how the study was carried out. The research design, the study area and the population, sampling methods, sample size and sample composition, data collection approach, data processing, data analysis, data quality, reliability and ethics were included.

3.1 Research design

Robson (2012) described research design as the general plan specifying how a study was arranged and carried out to answer the research question. This study used a cross-sectional survey research design to gather data from a representative population at one given moment in time without repeating results. This design was thought to be suitable since it allowed the researcher to record respondents' impressions and experiences regarding change management strategies and the uptake of e-procurement at a particular moment in time and takes relatively less time to finish. Moreover, the cross-sectional method let the research obtain information from National Forestry Authority (NFA) respondents with various backgrounds, experiences, and demographic traits. Adopting this approach provided concrete and empirical data on the link between e-procurement implementation and change management, therefore reducing reliance on assumptions and improving the validity of the results (Patrik & Ugo, 2019).

The study further adopted a mixed-methods research approach, integrating both quantitative and qualitative techniques to obtain comprehensive and in-depth insights. Quantitative approach involved the use of structured questionnaires administered to selected NFA employees involved in procurement, finance, ICT, and related administrative functions. At NFA, this strategy helped with the statistical analysis of how effective change management techniques particularly communication, training, and user support affect stakeholder participation and the implementation of e-procurement systems. On the other hand, qualitative approach involved the use of interviews with key informants including executive director, procurement officer, ICT manager, operations manager and finance manager who are directly engaged in the running and use of e-procurement platforms. Because of their technical expertise and strategic experience

with digital procurement changes and change management, these survey participants were regarded as vital informants. By offering both quantifiable relationships and qualitative reasons on how change management affected the effective adoption of e-procurement at the National Forestry Authority, the integration of numerical and qualitative data will help to improve the analysis.

3.2 Study area

The study was carried out at the National Forestry Authority (NFA) head office in Kampala and some regional offices in Uganda. The choice of NFA was because it is one of the public institutions that are currently using the Electronic Government Procurement (e-GP) system under the Public Procurement and Disposal of Public Assets Authority (PPDA) regime.

3.3 Study population

According to the data obtained from the Human Resource Manager (HRM) of National Forestry Authority (2026), there were 110 staff working in various departments of the institution and these were taken as the study population. The sample population also comprised of key informants which include the management of NFA such as the executive director, procurement officer, ICT manager, operations manager, and finance manager, giving a total of 5.

3.4 Sample size determination

Sample size, according to Katamba & Nsubuga (2014), was the portion of the population. We used the formula developed by Taro Yamane in 1970 to calculate the sample size:

n= N/(1+〖N(e)〗^2)

n= sample size, N= population, e= error (0.05) or confidence level (95%)

"N" (population) = 110 employees from the different departments in National Forestry Authority.

n= 110/ (1+〖110(0.05) 〗^2)

n= 110/ (1+110(0.0025))

n= 110/ (1+(0.275))

n= 110/1.275

n (sample) = 86 respondents got from a total population of 110 employees from the different departments in National Forestry Authority. The population and the sample size were subdivided in the table below.

So, the sample size from the table above was 86 selected employees from a total population of 110 employees from different departments in National Forestry Authority. The study also involved a sample of 5 key informants who are the senior management of National Forestry Authority (e.g., executive director, procurement officer, ICT manager, operations manager, and finance manager

Table 1: Population, sample size and sampling methods

Categories of respondents	Population	Sample size	Sampling method
Employees from different departments	110	86	Simple random sampling
Top management	5	5	Purposive sampling
TOTAL	**115**	**91**	

Source: *National Forestry Authority (2025)*

Therefore, the sample size from the table above was 86 selected employees from a total population of 110 employees from different departments in National Forestry Authority. The study also involved a sample of 5 key informants who are the senior management of National Forestry Authority (e.g., executive director, procurement officer, ICT manager, operations manager, and finance manager.

3.5 Sampling method

Simple random sampling and purposive sampling were used to determine the study's respondents. A simple random sampling technique was employed to choose employees from various departments of the National Forestry Authority (NFA), allowing each employee an equal opportunity to be selected, which minimizes bias in the study (Mubaazi, 2008). This technique was ideal given the number and distribution of employees across the different departments; it was used to collect quantitative data on change management practices and e-procurement adoption at NFA.

Purposive sampling was employed in selecting key informants from Senior Management (Executive Director, Procurement Officer, ICT Manager, Operations Manager and Finance Manager). These individuals were selected based on their positions and expertise, and participation in change management and e-procurement adoption at NFA. This type of sampling allowed the researcher to have rich and reliable qualitative data relevant to the research questions (Mubaazi, 2008).

3.6 Sources of data

Primary source: At the National Forestry Authority (NFA), staff and key informants were given structured questionnaires and semi-structured interviews to gather primary data from the field. This allowed the researcher to get first-hand information on change management strategies and their impact on the adoption of e-procurement systems within the institution.

Secondary source: NFA supplied secondary data from existing documents and reports such as procurement reports, policy documents, ICT reports, training manuals and internal performance reports. This data provided an additional source of information that supported the primary data

by providing background information and context on e-procurement implementation and change management initiatives.

3.7 Data collection methods and instruments

The study was guided by the following research instruments:

3.7.1 Questionnaires

A questionnaire was used to gather quantitative data from the National Forestry Authority staff. The questionnaire had both closed- and open-ended questions using a Likert scale to gather perceptions about the change management processes and the introduction of e-procurement systems. The questionnaire was structured into parts relating to the independent variable, the dependent variable and demography. The questionnaires were used because they were easily administered, time efficient, anonymous, and allowed data collection from a large sample in a short time (Creswell, 2014). The questions were answered on a five-point Likert scale with 5 = Strongly Agree, 4 = Agree, 3 = Not Sure, 2 = Disagree and 1 = Strongly Disagree.

3.7.2 Key informant interviews

Data was obtained through interviews using an interview guide from key informants from top management of NFA such as the Executive Director, Procurement Officer, ICT Manager, Operation Manager and Finance Manager. A semi-structured interview guide was used to conduct face-to-face and telephone interviews to have flexibility and to discuss change management and e-procurement adoption. Interviews helped to obtain rich and valid data as the respondents gave their opinions and experiences freely (Creswell, 2014).

3.8 Data collection procedure

The researcher secured a permission letter from the School of Business in Uganda Christian University and approached the management of National Forestry Authority for permission to use as a case study. The researcher selected some respondents for interviews and administered the questionnaires.

3.9 Quality and error control

3.9.1 Validity of the research instrument

The researcher ensured the validity of the instruments to be used in data collection first by conducting pre-test of questionnaires and the researcher tried to be actively involved in data collection and analysis to minimize errors in conducting her research. So, the researcher ensured the validity by considering how well the instruments measure the outcomes or how they design an intervention that it seeks to influence.

3.9.2 Reliability of the research instrument

A research instrument was reliable if it produced the same measurement even if it was administered by other researchers, it should give the same results to ensure reliability. And a pre-test was also done with some of the few respondents of this study before distributing the questionnaires to other respondents. So, the reliability was assured by doing a posttest and pre-test of the study. Reliability of the empirical measures was ensured by using the retest method where the same test was administered on some people after a certain period. The reliability of the test was then computed by testing the consistency of the responses for the two variables/sets.

3.10 Data analysis

3.10.1 Analysis of quantitative data

Data was gathered through questionnaires, coded and subsequently converted into values for analysis. The data was then analyzed using Statistical Package for Social Sciences (SPSS) version 26, which involved the use of descriptive statistics (frequencies, percentage, means and standard deviations) to present the respondents' opinions on change management and e-procurement adoption at National Forestry Authority. Inferential statistics such as Pearson's correlation coefficient were used to determine the association between change management and e-procurement system adoption. Furthermore, simple regression analysis was used to establish the degree to which change management can explain the e-procurement adoption.

3.10.2 Analysis of qualitative data

Thematic content analysis was used to interpret the qualitative interview data. Transcribed interviews were read, reviewed, and classified into themes and categories in accordance with the

research objectives. This allowed us to identify patterns and explanations of the impact of change management practices on e-procurement system adoption at NFA. Quotations from key informants were used to supplement inferences from quantitative data, where required.

3.11 Ethical considerations

Approval for this study were sought and obtained from the Uganda Christian University Research Ethics Committee. Once approved, permission for carrying out the study were sought from the National Forestry Authority (NFA) management. The respondents were made aware of the study's objective, researcher, and the need for their participation. The researcher took care to frame the questions in a professional manner to ensure that the study did not cause any harm, discomfort, or infringe on the rights of the respondents. They were free to participate, and no sensitive information was obtained. Consent was sought and obtained from all respondents before collecting data. Anonymity and confidentiality were maintained by using codes and not names or other identifiers. The right of participants to refuse to participate or withdraw at any time without penalty was explained to them. The data was collected for educational purposes and only accessed by the researcher, ensuring ethical research conduct and confidentiality of the research process.

3.12 Anticipated limitations and delimitations of the study

Time was scarce for collecting data as the researcher was busy with other academic work. The researcher managed time to do this study by asking the supervisor to allow him some time off the academic work. Secondly, the researcher had a challenge of the respondents not accepting to answer questions; they might not want to answer questions as they might not be legible. The researcher learnt how to get complete information from the available respondents to avoid the problem of less information from the respondents.

Lastly, respondents were too busy to answer the questions and go for interviews. They were using excuses of non-availability to answer the questions and be interviewed. This issue was tackled by scheduling an appointment with these respondents so as to get their time for them to respond to these questionnaires.

CHAPTER FOUR

DATA PRESENTATION AND INTERPRETATION OF FINDINGS

4.0 Introduction

The chapter presents and discuss the findings of the analyses that have been carried out to investigate the particular issues of the research and in reference to the literature review. The study was conducted through questionnaires to the employees of National Forestry Authority and interviews with the senior management of National Forestry Authority (NFA) namely the executive director, procurement officer, ICT manager, operations manager, and finance manager. The results are illustrated using tables to aid in the analysis.

4.1 Response rate

Table 1: Response rate for questionnaires

Response Rate	**Sample Size**	
	Frequency	**Percentage (%)**
Questionnaires filled	80	93.0%
Questionnaires not filled	6	7.0%
Total number of questionnaires issued out	86	100.0%

Source: *Primary data*

The response rate in table 1 above indicates that of the 86 (100.0%) questionnaires distributed to the employees of National Forestry Authority, 80 questionnaires were successfully filled with a response rate of 93.0% while 6 (7.0%) questionnaires were not filled. The researcher failed to collect data from one of the respondents because there was a little time to collect data as the report had to be submitted on time, while some of these respondents were hesitant to provide a response.

4.2 Findings on demographic characteristics of respondents

This chapter shows the background information of the respondents concerning their gender, age, education background and their tenure with National Forestry Authority (NFA) in the table below:

Table 2: Background Information about the respondents

Item	**Description**	**Frequency**	**Percentage (%)**
Gender	Male	47	58.7
	Female	33	41.3
	Total	**80**	**100.0**
Age bracket	21-30 years	38	47.5
	31-40 years	30	37.5
	41-50 years	12	15.0
	Total	**80**	**100.0**
Level of education	Diploma	17	21.2
	Bachelor's degree	34	42.5
	Master's degree	11	13.8
	Others	18	22.5
	Total	**80**	**100.0**
Period spent working with NFA	1-5 years	32	40.0
	6-10 years	37	46.3
	Above 10 years	11	13.7
	Total	**80**	**100.0**

Source: *Primary data*

This indicates that the workforce at NFA is mainly male but there was also a considerable number of females that were involved in the study, which reflects the gender diversity in the workplace.

About age, the highest proportion of respondents was in the age group 21-30 years (47.5%). This was followed by 31-40 years who made up 37.5% and 41-50 years who made up 15.0% of the sample, respectively. This indicates that the employment of NFA is primarily made up of younger and middle-aged employees, with a smaller number of older employees.

The level of education of the respondents reveals that most of them had a bachelor's degree, accounting for 42.5% of the respondents. This was followed by employees with other qualifications 22.5%, Diploma 21.2% and master's degree 13.8%. This finding reveals that majority of the respondents are highly educated, and with a high percentage of bachelor's degree holders, which may affect their attitude to using e-procurement systems.

In terms of experience, a large proportion of the respondents had been with NFA for 6-10 years (46.3%). They were followed by employees with 1-5 years' work experience at 40.0%, and then employees with more than 10 years' experience at 13.7%. This indicates that respondents are experienced employees with significant knowledge of the organization, and this could influence their attitude and involvement in the adoption of e-procurement.

4.3 Relationship between change management practices and e-procurement systems

Table 3 presents the responses of the respondents to the relationship between change management and e-procurement at NFA using a Likert scale (SA=Strongly Agree, A=Agree, NS=Not Sure, D=Disagree and SD=Strongly Disagree).

Table 3: Relationship between change management practices and e-procurement systems

Statements	Extent of agreement and disagreement				
	SA	A	NS	D	SD
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
NFA has clear strategies to guide employees during the transition to e-procurement systems.	42 52.5 %	24 30.0 %	00	10 12.5 %	4 5.0%
Management provides adequate leadership support during the implementation of e-procurement.	23 28.8 %	35 43.7 %	6 7.5%	11 13.7 %	5 6.3%
Employees are involved in planning and implementing e-procurement changes.	19 23.7 %	38 47.5 %	7 8.8%	15 18.7 %	1 1.3%
Organizational policies support the adoption of digital procurement systems.	21 26.3 %	34 42.5 %	5 6.3%	20 25.0 %	00
Change initiatives related to e-procurement are well coordinated across departments.	23 28.8 %	35 43.7 %	10 12.5 %	12 15.0 %	00
Resistance to e-procurement is effectively managed by NFA leadership.	24 30.0 %	40 50.0 %	00	16 20.0 %	00

Source: *Primary data*

Table 2 is the descriptive statistics on the link between change management and e-procurement systems at NFA. The study found that 82.5% of the respondents agreed that NFA has strategies to guide employees during e-procurement system implementation, while 17.5% disagreed. This suggests that the existence of well-designed change management strategies is recognized as crucial to steer employees through digital change, and that clear strategies can improve adoption

rates and ease resistance to e-procurement. The research also established that 72.5% of the respondents agreed that management provides adequate leadership support in the implementation of e-procurement whilst 20.0% disagreed with this, and 7.5% were not sure. This indicates that managerial support is recognized as one of the key drivers to adopt e-procurement, implying that managerial support can facilitate the transition process and make employees trust the process of e-procurement. Also, the study found that 71.2% of the respondents agreed that employees are involved in planning and implementing e-procurement changes, while 20.0% were disagreed, and 8.8% were unsure. This implies that employee participation in any form of change process is known to be a critical success factor in successful e-procurement adoption, and buy-in to organizational goals. Also, the results showed that 68.8 percent of the respondents agreed that the policies favor the implementation of electronic procurement systems as compared to 25.0 percent of respondents who disagreed, and 6.3 percent of respondents who were not sure. This underscores the role of policies in facilitating technological change and that well-defined policies can provide direction, stability, and institutional support in adoption of e-procurement.

Furthermore, the results demonstrated that 72.5% of the respondents agreed that change management initiatives to support e-procurement are well aligned across different departments while 15.0% disagreed and 12.5% were not sure. This shows that co-ordination among departments is important to the implementation of e-procurement systems, implying that coordinated efforts can reducing redundancy, streamline processes, and facilitate system integration.

Finally, the results indicated that 80.0% of the respondents agreed that NFA leadership does a good job in managing the resistance to e-procurement, whereas 20.0% disagreed. This suggests the importance of resistance management for successful digital adoption, implying that dealing with employee concerns and resistance can enhance the adoption and performance of e-procurement systems.

In conclusion, the findings reveal that the change management practices at NFA including change strategies, leadership and employee support, supportive policies, coordination, and resistance management are highly effective in improving the adoption and effectiveness of e-

procurement systems, implying that effective change management plays a critical role in ensuring the success of digital transformation in procurement.

4.4 Relationship between communication and the adoption of e-procurement systems

Table 4 generalizes the answers of respondents on the relationship between communication and adopting e-procurement systems at NFA, using Likert scale where SA (Strongly Agree), A (Agree), NS (Not Sure), D (Disagree) and SD (Strongly Disagree).

Table 4: Relationship between communication and the adoption of e-procurement systems

Statements	Extent of agreement and disagreement				
	SA	A	NS	D	SD
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
Information about e-procurement implementation is clearly communicated to all employees.	20 25.0 %	58 72.5 %	2 2.5%	00	00
Management regularly updates staff on progress and changes in the e-procurement system.	14 17.5 %	63 78.8 %	3 3.8%	00	00
Employees are encouraged to share feedback on e-procurement processes.	22 27.5 %	54 67.5 %	2 2.5%	2 2.5%	00
Communication channels for e-procurement issues are effective and accessible.	19 23.8 %	57 71.3 %	4 5.0%	00	00
Instructions on how to use the e-procurement system are clearly communicated.	13 16.2 %	49 61.3 %	00	18 22.5 %	00
Communication between departments supports the smooth use of e-procurement systems.	19 23.8 %	57 71.3 %	4 5.0%	00	00

Source: *Primary data*

Table 4 shows the descriptive statistics of the relationship between communication and adoption of e-procurement systems in the NFA. The study showed that 97.5% of the interviewees concurred that the information regarding e-procurement implementation is effectively conveyed

to all employees, 0.0% disagreed, and 2.5% not sure. This means that effective communication regarding system implementation is well understood among employees meaning that openness in dissemination of information can greatly contribute to knowledge and acceptance of e-procurement systems.

The results also indicated that 96.3 percent of the respondents believed that the management informs staff regularly on the progress and changes in the e-procurement system, with 0.0 percent of the respondents disagreeing, and 3.8 percent not knowing. This implies that ongoing communication by the management is deemed to be essential in keeping the employees updated and thus having frequent updates is likely to build confidence, decrease uncertainties, and ensure easy adjustment to the e-procurement procedures.

Additionally, the findings confirmed that 95.0% of the respondents responded that employees are motivated to provide feedback about e-procurement processes, 2.5% responded negatively, and 2.5% did not know. This emphasizes the importance of employee engagement in the form of feedback in the process of system adoption meaning that, as long as staff members are allowed to contribute freely, it is plausible to enhance the process of refining the system, staff satisfaction, and overall system effectiveness.

More importantly, the results depicted that 95.1% of the participants stated that the communication channels used in e-procurement issues are good and available, with 0.0% saying no, and 5.0% saying they are not certain. This highlights the importance of communication pathways that have been properly developed in solving system related issues, meaning that functional and available communication channels may help solve problems and maintain a continuous use of e-procurement.

Also, the findings indicated that 77.5 percent of the respondents believed that guidelines on the use of e-procurement system are well established, with 22.5 percent disagreeing. This shows that though directions are largely clear, there is still room to enhance it, which implies that by with more specific and easier to understand instructions, one can make it more usable and reduce the amount of operational errors in the implementation of e-procurement. Finally, the results indicated that 95.1 percent of the respondents were able to agree that interdepartmental

communication assists in efficiency of using e-procurement systems, with 0.0 percent that said the opposite, 5.0 percent that said they were not sure. This has shown how inter-departmental communication can help in coordinating and reducing disruptions, which implicates the incorporation of solid internal communication networks in order to enhance coordination and the general. functioning of the system.

All in all, the results revealed that effective communication at NFA with clear flow of information, frequent updates, feedback systems, convenient channels, instructions, and interdepartmental coordination is crucial in facilitating the adoption and successful operation of e-procurement systems, demonstrating that the communication is a major facilitator of digital transformation in procurement.

4.5 Relationship between training and user support and adoption of e-procurement

The responses of the respondents on the correlation between training and user support and adoption of e-procurement systems at NFA are summarized in Table 5 using Likert scale where SA (Strongly Agree), A (Agree), NS (Not Sure), D (Disagree) and SD (Strongly Disagree).

Table 5: Relationship between training and user support and adoption of e-procurement

Statements	Extent of agreement and disagreement				
	SA	A	NS	D	SD
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
Employees receive adequate training on how to use the e-procurement system.	23 28.8 %	51 63.8 %	4 5.0%	1 1.3%	1 1.3%
Training programs improve employees' confidence in using e-procurement tools.	19 23.8 %	53 66.3 %	7 8.8%	00	1 1.3%
Technical support is available when employees experience system challenges.	21 26.3 %	54 67.5 %	4 5.0%	1 1.3%	00
User manuals and guidelines for e-procurement are easily accessible.	23 28.8 %	51 63.8 %	4 5.0%	2 2.6%	00

Refresher training sessions are conducted to enhance system usage skills.	20 25.0 %	58 72.5 %	2 2.5%	00	00
The ICT department provides timely assistance for e-procurement system issues.	19 23.8 %	57 71.3 %	4 5.0%	00	00

Source: *Primary data*

Table 5 is the descriptive statistics of the relationship between training and user support and adoption of e-procurement system at NFA. The research found that 97.5 percent of the people responded that refresher training is done to improve skills in using the system, 0.0 percent responded that it is not, and 2.5 percent were not certain. This means that constant training is highly regarded meaning that refresher courses can boost employee's competency and confidence to use e-procurement systems a lot.

The results also showed that 95.0 percent of the respondents held the opinion that the ICT department is available to give the required help on e-procurement system problems in a timely manner as opposed to 0.0 percent who disagreed with the fact, with 5.0 percent not knowing. This implies that timely technical assistance is essential in the adoption of the system which means that timely ICT assistance means that there are minimal disruptions, greater user confidence, and facilitates the smooth running of the system.

Additionally, the results determined that 94.0% of the respondents stated that when employees face system difficulties, they can receive technical support, 1.3% did not agree, and 5.0% were not certain. This emphasizes that the availability of support in times of technical challenges is well established meaning that good support frameworks would help in minimizing frustration, enhancing productivity and enable effective utilization of e-procurement tools.

The results depicted that 92.6 percent of the respondents were of the view that training programs enhance the confidence of employees when using e-procurement tools with 1.3 percent saying the opposite and 8.8 percent not knowing. This illustrates that training is deemed important in the skill-building process, which means that properly designed programs will improve user

confidence, reduce errors, and ensure that users are more inclined to use the e-procurement system.

Further, the results indicated that 92.6% of the participants agreed that the staff are well-trained on the e-procurement system usage with 2.6% disagreeing and 5.0% uncertain. This implies that first training is relatively effective, which means that extensive training will provide the staff with the required skills and knowledge to use the system effectively.

Finally, the results showed that 92.5% of the respondents said that user manuals and e-procurement guidelines are readily available, 0.0% said they do not agree, and 5.0% were unsure. This highlights the need to offer easy reference materials which means that the availability of documentation aids in learning, minimizes mistakes and encourages employees to solve problems on their own.

In general, the results showed that training and user support at NFA such as refresher courses, technical support, confidence-building courses and easily available guidelines are important factors in improving the acceptance and efficient use of e-procurement systems and that a well-rounded capacity-building program is very important in making the systems efficient, user competent, and successful.

4.6 Relationship between stakeholder engagement and the adoption of e-procurement

Table 6 summarizes the results of respondent responses regarding their relationship between stakeholder engagement and e-procurement adoption at NFA in the form of a Likert scale SA (Strongly Agree), A (Agree), NS (Not Sure), D (Disagree) and SD (Strongly Disagree).

Table 6: Relationship between stakeholder engagement and adoption of e-procurement

Statements	Extent of agreement and disagreement				
	SA	A	NS	D	SD
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
Key stakeholders are consulted during the implementation of e-procurement systems.	42 52.5 %	24 30.0 %	00	10 12.5 %	4 5.0%
Suppliers are informed and engaged in the e-procurement process.	23 28.8 %	35 43.7 %	6 7.5%	11 13.7 %	5 6.3%
Top management actively supports stakeholder involvement in e-procurement initiatives.	19 23.7 %	38 47.5 %	7 8.8%	15 18.7 %	1 1.3%
Employees participate in decision-making related to e-procurement adoption.	21 26.3 %	34 42.5 %	5 6.3%	20 25.0 %	00
Feedback from stakeholders is considered in improving the e-procurement system.	23 28.8 %	35 43.7 %	10 12.5 %	12 15.0 %	00
Collaboration with external stakeholders enhances the success of e-procurement adoption.	24 30.0 %	40 50.0 %	00	16 20.0 %	00

Source: *Primary data*

Table 6 indicates the descriptive statistics of the correlation between the stakeholder engagement and adoption of e-procurement at NFA. The study revealed that 80.0% of the respondents said agreement that the collaboration with external stakeholders can improve e-procurement adoption success, whilst 0.0% said no, and 20.0% were not certain. This shows that external cooperation is of high importance, which means that the involvement of external partners and suppliers can make e-procurement systems much more effective and acceptable.

The results also indicated that 71.3% of the respondents affirmed that top management is also very supportive of stakeholder participation in e-procurement program whereas 20.0% opposed it and 8.8% were uncertain. This implies that stakeholder engagement is not possible without leadership support and therefore, active management participation can lead to collaboration, decreased opposition, and increased successful implementation of e-procurement processes.

Moreover, the findings confirmed that 72.5 percent of the respondents believed that 72.5 percent of suppliers are aware and participate in the e-procurement process, 20.0 percent disagreed as well as 7.5 percent were not certain. This underscores the need to maintain communication with the suppliers and their engagement which means that regular communication with suppliers would result in smooth procurement processes, foster trust, and facilitate timely and efficient procurements.

To a greater extent, the results portrayed that 71.3 percent of the respondents thought that the stakeholders feedback is taken into account in the process of enhancing the e-procurement system where 15.0 percent disagreed and 12.5 percent were not sure. This demonstrates that the contribution of the stakeholders is valued, which implies that the functionality of the system, user satisfaction, and continuous improvement can be positively impacted by adding feedback. Also, the results have shown that 68.8 percent of the respondents answer that the employees are the ones involved in the decision making process concerning the adoption of e-procurement adoption and 25 percent of the respondents answered otherwise and 6.3 percent of the respondents answered that they did not know. This implies that moderate levels of employee engagement in decision-making are moderate effective, which may mean that employee engagement may lead to increased ownership, reducing resistance, and making the change process to digital procurement systems a smoother process.

Finally, the results also indicated that 82.5% of the participants considered the major stakeholders to be consulted when implementing e-procurement systems, and 17.5% did not, and 0.0% responded with no certainty. This highlights the significance of early and ongoing consultation, which means that stakeholders should be involved in the planning process, which can result in enhanced acceptance, reduction of obstacles, and successful implementation of e-procurement projects.

All in all, the results suggest that stakeholder involvement such as management support, supplier involvement, employee involvement and feedbacks can play a vital role in the successful adoption of e-procurement at NFA and therefore inclusive and collaborative practices are key success factors in ensuring the system is well accepted, functional, and overall procurement is efficient.

4.7 Correlation analysis on change management practices and e-procurement systems

This was to be research on the relationship between change management practices and E-procurement Systems at National Forestry Authority (NFA), Uganda. This was achieved through conducting a correlation analysis on the Pearson Product Moment Correlation coefficient between composite score of change management practices and e-procurement systems at NFA, Uganda and the four components of change management namely, change management practices, communication, training and user support, and stakeholder engagement as to e-procurement systems at NFA. To have a significant correlation, the P-value (Sig. (2. tailed values should be less than 0.05 (95% confidence level) or less than 0.01 (99% confidence level) and the results are presented in Table 7 below.

Table 7: Correlation Matrix

	Correlation Matrix	**1**	**2**	**3**	**4**	**5**

1.	Change management practices	Pearson Correlation Sig. (2-tailed)	1				
2.	Communication	Pearson Correlation Sig. (2-tailed)	.957** .000	1			
3.	Training and user support	Pearson Correlation Sig. (2-tailed)	.993** .000	.971** .000	1		
4.	Stakeholder engagement	Pearson Correlation Sig. (2-tailed)	.963** .000	.964** .000	.973** .000	1	
5.	E-procurement systems	Pearson Correlation Sig. (2-tailed)	**.918**** .000	**.839**** .000	**.901**** .000	**.803**** .000	**1**

Note:

a) 1=Change management practices; 2=Communication; 3=Training and user support; 4=Stakeholder engagement and 5=E-procurement systems

b) ***P* < .05, **** *p* < .01 level of Significance

Source: *Primary data*

Corresponding to change management practices and e-procurement systems adoption at NFA, Table 7 results showed that overall change management practices and e-procurement systems have strong positive significant relationship (r = .918, p =.05). This means that with proper implementation of change management practices, there will be high adoption and effective utilization of e-procurement systems used in NFA as opposed to when change management practices are weak or poorly applied.

In addition, Table 7 results showed that communication and e-procurement systems have a strong positive significant relationship (r =.839, p <.05). This means that the adoption and smooth running of e-procurement systems in NFA is greater when communication about e-procurement implementation is clear and consistent than when it is poor and inconsistent.

Moreover, the findings as in Table 7 showed that, training and user support have a strong positive significant relationship with e-procurement systems (r =.901, p <. 05). It means that providing employees with proper training and user support increases the adoption and successful usage of e-procurement systems in NFA, as opposed to the insufficient training and support.

Finally, the findings in Table 7 showed that the relationship between the stakeholder engagement and e-procurement systems is a strong positive significant relationship (r =.803, p <.05). This means that the adoption and successful implementation of e-procurement systems at NFA is greater when the stakeholders are actively involved in the e-procurement process as opposed to when there is minimal or no involvement with the stakeholders.

CHAPTER FIVE

DISCUSSION, SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The discussion of findings in relation to the literature is found in this chapter. It also concludes all the findings reported in chapter four based on the questions asked in the study, makes conclusions, provides recommendations and even some areas that need to be studied further.

5.1 Summary of findings

The results suggest that change management practices at NFA are critical towards improving the adoption of e-procurement systems. Most respondents concurred that NFA has well-established plans that guide the employees through the transition, the organization has leadership support, the staff is involved in planning and implementation, organizational policies support digital procurement, change initiatives are well-coordinated across departments, and resistance to e-procurement is well-managed. These findings indicate that the well-organized plans, proactive leadership, employee involvement, enabling policies, interdepartmental integration, and proactive resistance management contribute to the implementation process being smoother, the system being more usable, and the acceptance of e-procurement. In general, the research indicated that change management practices were significantly positively correlated with e-procurement adoption ($r = .918$, $p < .05$) which means that successful change management has a direct positive effect on successful adoption and utilization of e-procurement systems at NFA.

Moreover, the results suggest that the communication in NFA is instrumental in the process of increasing the usage of e-procurement systems. Most of the respondents stated that information regarding the implementation of e-procurement is frequently communicated to employees, management regularly updates them on the system progress, and changes, employees are motivated to provide feedback, there are effective and accessible channels of communication during and after e-procurement, instructions on how to use the system are clear, and inter-departmental communication facilitates the seamless operation of the system. These findings indicate that a transparent information exchange, updates, feedback, easy channels, user instructions, and coordination among departments serve to make the implementation process smoother, enhance the system usability, and promote acceptance of e-procurement. In general, the research indicated that there was a significant and positive relationship between communication and e-procurement adoption ($r = .839$, $p = .05$), indicating that effective communication has a direct positive impact on the successful adoption and utilization of e-procurement systems at NFA.

Moreover, the results reveal that training and user support at NFA is also essential in increasing the adoption of e-procurement systems. Most of the respondents concurred that refresh training is

held to improve system usage skills, the ICT department offers timely support on system problems, there is technical support when employees experience difficulties, training programs enhance employee confidence, employees get sufficient initial training, and user manuals and guidelines are readily available. These findings indicate that sustained capacity-building, timely technical support, confidence-building guidelines, and availability of reference materials can all contribute to a smoother implementation process, enhanced skills of users, minimized mistakes, and effective use of e-procurement systems. In general, the results showed that there is a strong positive significant correlation between the training and user support with e-procurement adoption ($r = .901$, $p < .05$) meaning that a holistic approach of providing training and support has a direct positive impact on the successful adoption and use of e-procurement systems at NFA.

Finally, the results revealed that stakeholder involvement at NFA is very instrumental in promoting the adoption of e-procurement systems. Most respondents believed important stakeholders are consulted in the implementation process, that top management is actively involved in stakeholder participation, suppliers are notified and involved, employees are consulted in decision making, stakeholder feedback is factored, and that partnering with outside stakeholders is a step towards success. These findings indicate that early consultation, leadership support, supplier involvement, employee involvement, feedback and external collaboration are effective in enhancing a smooth implementation process, enhancing the functionality of the system, and promoting the acceptance of e-procurement. Overall, the analysis indicated that there is a strong positive significant correlation between stakeholder engagement and e-procurement adoption ($r = .803$, $p < .05$), which suggests that the direct effect of active stakeholder involvement on the success adoption and utilization of e-procurement systems at NFA is positive.

5.2 Discussion of findings

5.2.1 Relationship between change management practices and e-procurement systems

Based on the research findings, change management techniques employed by NFA are critical towards enhancing its acceptance of e-procurement systems. More specifically, the respondents indicated that the effective resistance management, coordination across departments, supportive policies, employee engagement, leadership facilitation and goal clarity combined can make e-

procurement easier to implement and accept. These findings justify the study by Abaine (2024) who found that in the state-run institutions of Uganda, the planned change management practices significantly enhance the uptake of e-procurement. Similarly, Armenakis and Harris (2009) emphasized that successful digital transitions require strong leadership, employee engagement, and structured change management processes. These findings, however, contradict Mohungoo et al. (2020) who observed that even with the presence of change frameworks, there are still several companies in the public sector in Africa who, in spite of being present, still face opposition and low rates of adoption due to poor policy implementation and lack of coordination. This means that not all organizations will achieve the same results as NFA does despite its successful methods without effective execution.

The findings of the survey indicated that, adequate employee engagement in the planning and implementation and leadership support were purely facilitating factors to the acceptance of e-procurement by NFA. The findings align with Kotter (2012) and Hiatt (2006), who argue that to overcome resistance and ensure smooth execution of organizational changes, such as technological system changes, leadership commitment and employee investment are crucial. Likewise, Laig and Abocejo (2021) have found that participatory change management strategies assist the employees to be more aware and accepting of the projects of digital transformation. Conversely, the findings are somewhat inconsistent with Basheka et al. (2012) who concluded that in some of the Ugandan government organizations, participation among employees was not associated with effective adoption due to the lack of management support and effective communication. This highlights the fact that despite the importance of employee involvement, it must be reinforced with frequent leadership behaviors to achieve maximum uptake.

The findings of the study revealed that the integration of e-procurement systems in NFA was positively influenced by the presence of structured plans, favorable policies as well as proactive resistance management. The findings align with Ali (2025), Munyua and Muturi (2022) who found that entirely structured change management systems with policy alignment and resistance management enhance the uptake of technology in the public sector firms. As well as other researchers, Magnúsdotir (2018) emphasized that implementing the methods of change management described by Kotter regularly assists in making transitions and increasing the

acceptance rates. Conversely, the findings of Oppong (2020) who noted that in a few cases of the public sector, the rate of adoption remained low despite the formal change processes due to poor training and the absence of continued stakeholder participation is opposite. This implies that other firms may require additional interventions such as capacity building and increased stakeholder participation to achieve similar adoption outcomes in case the systematic procedures in NFA were effective.

5.2.2 Relationship between communication and the adoption of e-procurement systems

The survey results revealed that good communication in NFA is highly valued to make people make more use of the e-procurement systems. The respondents reported that information regarding the usage of the systems could be readily located, updates were provided on a regular basis, and members of staff were informed to share their feedback. These findings are consistent with the study conducted by Ahimbisibwe et al. (2018), who added that, in Uganda, the adoption of good e-procurement relies on effective communication channels and regular updates since they reduce uncertainty and improve staff engagement. Good communication internally, as Chigudu (2022) emphasized, instills confidence, and ensures that employees understand the rationale behind digitization procurement initiatives in African public sector reforms. This study supports the concept that frequent information delivery and feedback loop would make users trust the system and make it more acceptable.

The research findings indicated that specific instructions, readily accessible communication means, and interdepartmental collaboration contribute to the systems of e-procurement at NFA operating efficiently and allowing their use. The findings are consistent with Munyua and Muturi (2022), who found that successful e-procurement implementation requires well-coordinated communication between departments and a ready source of advice resources, reducing the disruptions in operations. Also emphasizing the fact that the integration of communication with technical support and ERP systems enhances usability and ensures that consumers can pass the digital platforms successfully are Hawking and Stein (2021). Conversely, Bobowski and Gola (2018) discovered that although there might have been a way to communicate with one another in certain European public organizations, ambiguous instructions and contradictory information

made it difficult to use the system. This indicates that the way NFA integrates clear instructions and coordination of various departments is quite effective.

The survey conducted in NFA suggests that system acceptance and adoption can be improved through frequent updates, inter-departmental communication, and feedback systems. These findings align with Chan and Owusu (2022), who concluded that successful digital procurement system implementation requires structured communications and employee involvement in feedback loops. Sakutemba (2024) additionally highlighted that frequent updates and free-flowing communications in African public institutions assist in boosting trust in the system and reducing opposition through stakeholder engagement. Conversely, Vaidya et al. (2019) discovered that communication was insufficient to promote adoption in some circumstances in the public sector unless it is accompanied by equal leadership involvement and capacity building. This means that even though NFA has a successful communication approach, their success is likely to be boosted by sponsoring change management methods.

5.2.3 Relationship between training and user support and adoption of e-procurement

The study findings show that training and user support at NFA significantly enhance the adoption of e-procurement system. According to the respondents, refresher courses and first capacity-building workshops enhance competency and confidence of workers. The findings confirm the argument presented by Muriithi and Crawford (2019) that continuous employee training is a key to successful digital reforms in the public sector organizations as it enhances talents and reduces errors in operation. On the same note, Nandankar and Sachan (2020) observed that easy user manuals and special training courses are the key elements that contribute to successful e-procurement uptake. This demonstrates that well-trained employees will experience more positive impacts of digital procurement systems.

The research findings revealed that prompt ICT assistance at NFA and prompt technical assistance support to ensure that the system operates more efficiently and reduces challenges encountered by the staff members. The findings are consistent with Marita et al. (2022) who emphasized that in public sector technology implementations, timely user support and swift technical teams increase user satisfaction and system reliability. However, the authors Raghul et al. (2024) noted that in certain corporate environments, even with technical support, absence of

practical training limited the adoption of the technology by employees, so NFA strategy of providing support and practical training turns out to be particularly effective.

The study findings revealed that, combined, the readily accessible rules, user manuals, and regular capacity-building programs enhance user awareness, reduce errors, and encourage effective utilization of e-procurement systems at NFA. The findings corroborate the body of knowledge concerning MAPS (2025) that indicated that regular training and availability of reference tools is highly significant in long-term e-procurement application in Ugandan government institutions. Conversely, World Bank (2021) has indicated instances in which much training did not result in adoption due to employee resistance or lack of reinforcement of training. This demonstrates that although the training programs conducted by NFA are good, the success may be determined by other factors such as the effectiveness with which change is managed as well as the effectiveness with which the stakeholders are engaged.

5.2.4 Relationship between stakeholder engagement and adoption of e-procurement

The survey outcomes revealed that the early involvement of key players and their engagement significantly increases the adoption of e-procurement solutions at NFA. According to respondents, engaging the stakeholders in the implementation process can serve to guarantee improved system integration and acceptance. To relate the findings with the literature, according to MAPS (2025) the early stakeholder involvement in Ugandan public institutions is crucial to ensure that e-procurement systems are sensitive to organizational needs and reduced resistance to change, thus being able to connect the results to the literature. Similarly, Maepa et al. (2023) established that stakeholder engagement and willingness to participate in digital procurement were the main predictors of its successful implementation in South African government agencies. Conversely, Raghul et al. (2024) concluded that the organizational culture should promote group decision-making, otherwise, even with stakeholder participation, adoption may be limited, meaning that consultation alone may not suffice without broader institutional assistance.

The study findings indicate that employee engagement in decision-making as well as the management support of the top management positively influence the implementation and use of e-procurement systems. The findings are like those of Luo et al. (2023), who found that there is a strong correlation between organizational preparedness and leadership support with the adoption

of technology as the management approval motivates personnel and facilitates resource allocation. On the other side, World Bank (2021) reported cases where even with the full support of top management, it was not adopted due to bad feedback systems and bad follow-up by employees, thus engagement should be accompanied by continuous communication and feedback loops to be fully successful.

The study results at NFA showed that supplier involvement, consideration of feedback, and collaboration with external parties are effective together in increasing group acceptance and effective utilization of e-procurement systems. These findings align with Swedi's (2024) claims that the openness of procurement and efficiency of the procurement system in the public institutions are increased by the involvement of outside stakeholders, especially suppliers. Mavidis and Folinas (2022) however argued that in certain European settings of the public sector, established bureaucratic procedures and low supplier willingness played out that external cooperation would not significantly impact adoption, hence noting that NFA is characterized by high levels of stakeholder engagement, but environmental factors can influence the efficiency of the outer cooperation.

5.3 Conclusions

The study concludes that good change management strategies at NFA help people use e-procurement systems more widely. A favorable climate for seamless implementation is produced by organized plans, leadership backing, employee involvement, encouraging policies, inter-departmental cooperation, and proactive resistance management taken together. Good change management makes sure that organizational objectives match digital procurement efforts and that staff members are steered through transitions.

In addition, the research concludes that effective implementation of e-procurement requires good communication. The system is understood, used and accepted through regular updates, encouragement of feedback, sharing of clear information, easy to use communication channels and coordination across departments. Open and frequent communication ensures that employees are informed, engaged and skilled enough to effectively employ the e-procurement system. Moreover, the research has found that the user support and training are much needed to enhance e-procurement acceptance. User manuals that are easily accessible, refresher training, quick ICT

assistance, technical assistance, confidence building activities, and the easily accessible user manuals all combine to make employees better and reduce the number of errors made at the workplace. The employees feel safe to utilize new digital practices and use the system effectively due to continuous capacity-building and fast response. Finally, the research paper comes to the conclusion that stakeholder involvement is the key to the successful implementation of e-procurement. Outside partner engagement, employee involvement, inclusion of suppliers, senior management support, consultations to important stakeholders and working with others enhance the usefulness and acceptability of a system. When all parties involved take an active part, they will feel that it is their process, and this will reduce resistance and make people more determined to participate in digital procurement systems.

5.3 Recommendations

The paper finds that effective change management practices at NFA can be used to make people more inclined to use e-procurement systems. Combined, these elements create a good climate of smooth implementation, which is supported by well-organized plans, leadership support, staff involvement, supportive policies, cross-departmental collaboration, and active management of resistance. Good change management makes sure that organizational objectives match digital procurement efforts and that staff members are steered through transitions. Moreover, the research finds out that effective implementation of e-procurement requires good communication. The system is understood, used, and accepted by regular updates, encouragement of feedback, clear information sharing, easy to use communication channels and coordination across departments. Frequent and transparent communication will ensure that employees are informed, engaged, and skilled to use the e-procurement system appropriately. Furthermore, it is concluded in the study that user support and training is important in enhancing the e-procurement acceptance. All these combined with refresher training and quick ICT help, technical support, confidence building activities and easily accessible user manuals all combine to help the employees become better and reduce the number of mistakes made at the workplace. Employees feel secure in using new digital methods and use the system efficiently thanks to ongoing capacity-building and quick support. Finally, the research comes to a conclusion that the success of e-procurement implementation is largely based on stakeholder involvement. To make a system useful and acceptable, involvement with external partners, encouraging employee

involvement, involving suppliers, gaining the support of senior management, consulting with important stakeholders and working with others are helpful. By actively engaging all parties concerned, they feel they own the process and hence, reducing resistance as well as making them more committed to digital procurement programs.

5.4 Areas for further research

Since this case study was designed to explore the correlation between change management the study E-procurement Systems and practices at National Forestry Authority (NFA), Uganda implicates that the same research needs to be conducted on other related issues concerning this topic and areas of additional researches need were as follows. The next study area can be how organizational culture affects the uptake of e-procurement systems in the government institutions. Learning how the cultural issues affect the effectiveness of change management can help get a better understanding of the system acceptance and use.

Additional research might explore the impact of technology infrastructure and digital preparedness on supporting e-procurement adoption. This may be useful in determining technical barriers that impact successful execution of change management initiatives.

Finally, other issues that researchers might explore include the impact of employee attitudes and resistance on the adoption of e-procurement in various government agencies. Comparative studies would give a wider perspective of how change management practices would alleviate resistance and improve system uptake.

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APPENDCIES

Questionnaire

For employees in National Forestry Authority

Introduction and Purpose of Study

Dear Respondent,

I am Musiimenta Patricia a student pursuing a degree of Bachelor of Procurement and Logistics Management (BPLM) of UCU. As a requirement for the award of Degree of BPLM, I am required to conduct research. My topic of study is, "the role of change management in adopting e-procurement in Uganda a case of the National Forestry Authority (NFA)." Upon that background, you have been selected as an important respondent for this study which is purposely for academic purpose. I therefore kindly request you to truthfully provide responses to the following questions. All information will be treated utmost confidentiality.

Section A: Background Data

Please tick the box representing the most appropriate responses for you in respect of the following items:

1. Gender

(a). Male ☐

(b). Female ☐

2. In what age bracket do you belong?

(a). 21-30 years ☐

(b). 31-40 years ☐

(c). 41-50 years ☐

(d). 51+ years ☐

3. What is your highest level of education?

(a). Certificate ☐

(b). Diploma ☐

(c). Bachelor's Degree ☐

(d). Master's Degree ☐

(e). Others specify……..

4. For how long have you been working with NFA?

(a). Less than 1 year ☐

(b). 1-5 years ☐

(c). 6-10 years ☐

(d). Above 10 years ☐

Guide for Completing the Questionnaire:

Note: In the following sections, rate your degree of agreement on each statement under each objective using a scale of 5(Strongly Agree), 4(Agree), 3(Not sure), 2(Disagree) and 1(Strongly Disagree). Please answer questions by making a tick (√) on your preferred answer of choice.

Section B: Change Management

	Statements	**Responses**				
s. no	Change management practices	5	4	3	2	1
1	NFA has clear strategies to guide employees during the transition to e-procurement systems.					

2	Management provides adequate leadership support during the implementation of e-procurement.					
3	Employees are involved in planning and implementing e-procurement changes.					
4	Organizational policies support the adoption of digital procurement systems.					
5	Change initiatives related to e-procurement are well coordinated across departments.					
6	Resistance to e-procurement is effectively managed by NFA leadership.					
s. no	**Communication**	**5**	**4**	**3**	**2**	**1**
1	Information about e-procurement implementation is clearly communicated to all employees.					
2	Management regularly updates staff on progress and changes in the e-procurement system.					
3	Employees are encouraged to share feedback on e-procurement processes.					
4	Communication channels for e-procurement issues are effective and accessible.					
5	Instructions on how to use the e-procurement system are clearly communicated.					
6	Communication between departments supports the smooth use of e-procurement systems.					

s. no	Training and user support	5	4	3	2	1
1	Employees receive adequate training on how to use the e-procurement system.					
2	Training programs improve employees' confidence in using e-procurement tools.					
3	Technical support is available when employees experience system challenges.					
4	User manuals and guidelines for e-procurement are easily accessible.					
5	Refresher training sessions are conducted to enhance system usage skills.					
6	The ICT department provides timely assistance for e-procurement system issues.					
s. no	**Stakeholder engagement**	**5**	**4**	**3**	**2**	**1**
1	Key stakeholders are consulted during the implementation of e-procurement systems.					
2	Suppliers are informed and engaged in the e-procurement process.					
3	Top management actively supports stakeholder involvement in e-procurement initiatives.					
4	Employees participate in decision-making related to e-procurement adoption.					
5	Feedback from stakeholders is considered in improving the e-procurement system.					

6	Collaboration with external stakeholders enhances the success of e-procurement adoption.					

Section C: Adoption of E-procurement Systems at NFA

	Statements	**Responses**				
s. no	**Adoption of e-procurement systems at NFA**	**5**	**4**	**3**	**2**	**1**
1	The e-procurement system is widely used for procurement activities at NFA.					
2	E-procurement has improved the efficiency of procurement processes at NFA.					
3	The system has increased transparency in procurement transactions.					
4	Employees are satisfied with the functionality of the e-procurement system.					
5	E-procurement has reduced procurement cycle time and paperwork.					
6	The system is reliable and supports day-to-day procurement operations effectively.					

Thank you very much for your cooperation

Interview Guide

For the top management of National Forestry Authority

Introduction

Dear Respondent,

I am Musiimenta Patricia a student pursuing a degree of Bachelor of Procurement and Logistics Management (BPLM) of UCU. As a requirement for the award of Degree of BPLM, I am required to conduct research. My topic of study is, "the role of change management in adopting e-procurement in Uganda a case of the National Forestry Authority (NFA)." Upon that background, you have been selected as an important respondent for this study which is purposely for academic purpose. I therefore kindly request you to truthfully provide responses to the following questions. All information will be treated utmost confidentiality.

Section A: Introduction

1. Tell me about yourself.
2. What position do you hold in NFA?
3. How long have you worked in this position?

Section B: Questions on the research objectives

4. How does NFA ensure smooth transition and acceptance of e-procurement among employees?
5. How does management communicate e-procurement updates and changes to staff effectively?
6. What training and support mechanisms are in place to help employees use the e-procurement system?
7. How are internal and external stakeholders involved in the adoption and implementation of e-procurement?

Thank you for your cooperation