

**ANALYSIS OF ELEMENTS INFLUENCING ELECTRONIC PROCUREMENT
PERFORMANCE IN KILIFI COUNTY GOVERNMENT, KENYA**

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DECLARATION AND APPROVALS

Student's Declaration

I hereby declare that this research project is a result of my original efforts and has not been submitted anywhere for any degree award.

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Supervisor's approval

This research project has been submitted for examination with my approval as the supervisor.

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Date: 4/7/2024

DEDICATION

This research endeavor is a tribute to my parent Mr. Boniface Mutula, spouse Mr. Ibrahim Mwatemo, sons Muhammad Ibrahim and Ismail Ibrahim for divine inspiration.



ACKNOWLEDGMENT

Above all, I am profoundly grateful to the Divine Providence, who has extended boundless mercy and grace throughout my journey. I am equally thrilled to have had the guidance of an exceptional mentor, Dr. Peter Wamalwa Barasa. His unparalleled wisdom, patience, and dedication throughout this research proposal have surmounted all challenges. I owe immense gratitude to my spouse Ibrahim Mwatemo, whose influence in my life has been pivotal. Their ceaseless encouragement and emotional support have been the wind beneath my wings, for which I will remain eternally thankful.

ABSTRACT

This research endeavored to Analysis the Elements Influencing Electronic Procurement Performance in Kilifi County Government, Kenya. The specific objectives of the study were; to examine the effect of public procurement regulations on electronic procurement performance in Kilifi County Government; to establish the effects of staff competence in ICT on electronic procurement performance in Kilifi County Government; to identify the effect of managerial commitment on electronic procurement performance in Kilifi County Government and finally to assess the impact of Information communication technology infrastructure on electronic procurement performance in the Kilifi County Government. The researcher employed a descriptive research methodology. The target population included 200 personnel from diverse departments in Kilifi County Government, Kenya. The study aimed at extract valuable insights from key participants from the department of the Human Resources, Finance, Inspectorate, ICT, Procurement departments, and members of the Budget Committee. For a precise analysis, the researcher employed purposive sampling methods to curate a subset of 60 respondents for our study. Our primary data collection tool was semi-structured questionnaires. Subsequently, the data underwent analysis using the SPSS software, version 24. To ensure the reliability of findings, the researcher applied the internal consistency technique, leveraging Cronbach's alpha. The results indicated that there is a noteworthy positive relationship between public procurement policies and Electronic Procurement Performance in Kilifi County Government, Kenya with the coefficient of correlation ($r = 0.839$, $p = 0.000$). The results also showed there is a significant positive relationship between ICT proficiency and Electronic Procurement Performance in Kilifi County Government, Kenya with ($r = 0.572$, $p = 0.000$). The results also indicated a significant positive relationship between management support and Electronic Procurement Performance in Kilifi County Government, Kenya with ($r = 0.627$, $p = 0.000$) and finally there existed a significant positive relationship between ICT infrastructure and Electronic Procurement Performance in Kilifi County Government, Kenya with ($r = 0.971$, $p = 0.000$). In terms of the weight of the variables; public procurement regulations which (53.5%), followed by managerial commitment at (43.7%), Staff competence in ICT at (12.8%) then ICT infrastructure at (12.6%). On the issue of ICT proficiency, the recruitment criteria of County government should be designed and followed strictly to ensure that the County hires staff with the necessary job experience and expertise. Management support and goodwill also acts as a motivation to the staff who feel facilitated to undertake their roles within the organization. The County Government of Kilifi should not only ensure that the electronic procurement system is put in place but also ensure that it's up to date with the technological changes that are dynamic in nature. They should also ensure that experienced and skilled staffs are hired to run the system. Lastly, The County Government of Kilifi should ensure that it invests heavily in the ICT infrastructure like computers and an effective system as well including reliable internet which will facilitate the efficiency of electronic procurement processes.

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ABBREVIATION AND ACRONYMS

ERP : Enterprise Resource Planning

ICTs : Information Communication Technologies

IFMIS : The Integrated Financial Management Information System

IT : Information Technology

KPIs : Key Performance Indicators

MRP : Material Requirement Planning

MRP II : Manufacturing Resource Planning

OECD : Organization for Economic Cooperation and Development

PPDA : Public Procurement and Disposal Authority

SCI : Supply Chain Integration

TAT : Technology Acceptance Theory

TPS : The Toyota Production System)

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter covers background to the study, statement of the problem, purpose of the study, research objectives, research questions, significance of the study, scope of the study, limitations of the study, delimitations of the study, assumptions and operational definition of key terms.

1.1 Background to the study

Public procurement is viewed as the overall process of acquisition goods, civil works and services involving all functions right from needs identification, supplier identification, choosing and solicitation, preparation and award of contract and all steps of contract administration all through the end of the service or useful life of an asset (Thai, 2019). Public procurement has gained great importance worldwide owing to the significant share of the Gross Domestic Product (GDP) that it accounts for. According to Darin (2010), public procurement across the Sub-Saharan Africa accounts for 8-15% of the GDP, therefore improvement in procurement legislation and its implementation results into approximately 30% savings.

Van Weele (2016) posits that public procurement performance is regarded as a result of two elements; effectiveness and efficiency, which represent different competencies and capabilities for the procurement function. The element of performance acts as the yardstick against which an organization to assesses how well it is progressing towards its predetermined objectives. This forms the basis upon which strengths and weaknesses are identified and decisions on future initiatives made with a view to initiate performance improvements. Public procurement importance has seen governments improve their procurement processes with implementation of new systems such as E-

procurement that relates with technologies like E-Commerce which links the procurement function to the world thus making it easy to exploit the available business opportunities (Wanyama, 2012). Globally, procurement has evolved by changing its interest from short term purchasing roles to strategic, value adding purchasing and supply chain initiatives (Johnson, 2011). This move has been triggered by the dynamics of the global business environment which is characterized by challenges and opportunities whereby only the most competitive ventures survive the tides. This evolution has necessitated the employment of internet-enabled operations in order to cope with modern business environment which is swiftly drifting away from traditional and manual paperwork in the procurement process. According to Eyaa (2011), procurement is now appreciated as an integral strategic function as opposed to the traditional view of the last few decades which regarded procurement as an auxiliary function that provides for sourcing needs of other departments.

The Kenyan procurement system has greatly evolved over the last decades from a system with no governing regulations in the 1960s to a system regulated by treasury circulars in the period between 1970s to 1990s (Odunga, 2015). Public Procurement and Disposal Act (PPDA) of 2005 and the subsequent regulations of 2006 was then introduced in order to set new standards that governed public procurement in Kenya since then. The main aim of this act and the regulations was to streamline supply chain management and introduce ethics in the public sector in Kenya. These reforms brought with them the standardization of public procurement practices across all the procuring entities in Kenya. The reforms aimed at streamlining the procurement process in Kenya saw the installation of a tenders portal to act as a publication platform for information of tender notices and contract awards (Wanyama, 2012)..

The government of Kenya introduced vision 2030 which is anchored on three pillars; political, economic and social development, with actionable strategies in this plan being transparency and accountability in strategic investment plans (Njoroge, 2014). Of much importance on public

investment was the economic pillar which focuses on public investment based on accountable, efficient and effective management of resources as the key elements of good governance. This was also in a bid to ensure the government performs the most important responsibility of ensuring efficient use of public funds. Khemani (2015) posits that, to gain public confidence, the government committed itself to introduce a process aimed at enhancing coordination, planning, mobilization, allocation, management and reporting of public resource usage in compliance with procurement guidelines.

This birthed the use of electronic procurement system, popularly known as the Integrated Financial Management Information System (IFMIS) which was believed to be a major contributor in achieving these strategic objectives. In Kenya, the journey towards the automation of procurement processes began in 1997 with efforts to implement a project aimed at strengthening government finance and accounting functions with the sole aim of improving financial management, accountability and transparency of public funds. A number of diagnostic reviews were conducted within a period of three years where Financial Management Information Systems were developed in two phases. IFMIS was introduced in 2008 and rolled out in all government ministries within a period of five years. This system has been a benchmark for the country's budget reform agenda which is regarded as a precondition for achieving effective management of budgetary resources.

ICT has been adopted by governments worldwide, in both developed and developing nations, to improve public service quality, advance public information access, and promote civic involvement. To increase communication and simplify the flow of information, the Kenyan government recognizes the significance of information and communication technology (Chebii, 2016). In this context, electronic procurement, which comprises internet technology to acquire goods, services, and labor plays a crucial role. By improving the structure and tracking of transaction records and

enabling more effective supply chain integration, these technologies make it easier to collect data (Ambali, 2010).

Global trends have influenced the development of the ICT sector in Kenya, and a variety of indicators, including the number of fixed and mobile phone lines, computers and services, Internet service providers, Internet users, and broadcasting stations, can be used to track its progress (Chebii, 2016). Governments are aware of the possibility of achieving similar revolutions by adopting the ideas and innovations guiding the electronic business revolution. Due to this, electronic procurement has become a receivable management solution for financial service organizations in both the public and commercial sectors. Its goal is to improve public financial management systems by encouraging accountability, transparency, and responsiveness to goals in public spending policy.

Electronic Procurement has gained great popularity globally with many nations embracing technology. Rapid development of E-procurement was registered in the beginning of the year 2000 in USA prior to the famous recession. Towards the end of that year, all state functions were maintaining web presence in their procurement processes with some going as far as online bidding (Kinoti, 2017). Electronic procurement has become an ever-growing means of doing business globally with recent projections by World Bank showing that transactions worth \$3 trillion will be done by the end of 2024 up from \$75 billion in 2020 (Amuhaya, 2023). The use of E-procurement comes with several benefits like; high levels of integrity, minimized corruption, cost reduction and increased efficiency as compared to the traditional manual procurement.

There are numerous forms of E-procurement that are applied in the different stages of procurement process such as e-tendering, e-auction, e-catalogue, vendor management, purchase order integration, e-invoicing, electronic funds transfer and contract management. According to Chebii (2016), E-

purchasing, which is enabled by ICT development has greatly made procurement more competitive and efficient in the dynamic global business environment through value addition which has resulted to cost reduction. In relation to this, Ambali (2010) posits that automation of procurement processes has brought efficiency and effectiveness which translates into value improvement, reduction in order cycle, standardization of procedures, reduction in mistakes and quick supplier payments which is an important ingredient in enhancing good supplier relationship.

Despite being in existence for the last two decades and the enhancement of technology landscape, Kahiu (2015) posits that only 25% of the available functionality of E-procurement is utilized by government functions. This is because of insufficient training and little or none alignment to procurement's evolving requirements. Despite all these shortcomings, the concept of E-procurement is still gaining popularity within both public and private sectors. To deal with the problem of lack of accountability and transparency in public procurement processes, most countries have instituted major legal reforms as well as the uptake of procurement. Kenya, for example, has instituted electronic procurement infrastructure to facilitate electronic sharing, electronic advertising, electronic submission, electronic evaluation, electronic contracting, electronic payment, electronic communication and electronic monitoring especially in the county government level to ensure accountability in the procurement processes (Marei, 2022).

Kilifi County is one of the five counties that make up the Kenyan coast. Like all other counties in Kenya, Kilifi County Government has recognized the potential benefits of electronic procurement and has implemented it in its procurement practices. According to Chebii (2017), the Public Procurement and Disposal Act (2015) provides the legal framework to guide procurement in Kenya and thus emphasizes more on electronic systems. Despite adoption of the electronic procurement systems by County Government of Kilifi, effectiveness and efficiency in the procurement processes

have not been greatly achieved as initially projected (Kahiu, 2015). These challenges result from underutilization of the systems and partial use of manual processes which lead to variations between the actual and expected outcomes.

According to Kahiu (2015), managerial commitment is also crucial for the success of electronic procurement. The support and commitment of top-level management play a vital role in ensuring the effective implementation and utilization of e-procurement systems. If the management of the Kilifi County Government demonstrates a solid commitment to electronic procurement, it is likely to have a positive impact on its performance. Furthermore, a robust information communication technology infrastructure is essential for the smooth functioning of electronic procurement. The availability of reliable hardware, software, internet connectivity, and other technological resources dramatically affects the performance of e-procurement systems.

One key element of electronic procurement performance is adherence to public procurement regulations. Public procurement regulations ensure transparency, accountability, and fair competition in the procurement process (Kahiu, 2015). However, the extent to which these regulations are effectively implemented and followed by Kilifi County Government may impact the performance of electronic procurement. Another element is the competence of staff in information and communication technology (ICT). The successful implementation of electronic procurement systems relies on staff members' ability to effectively operate and utilize these technologies (Kahiu, 2015). Therefore, the level of ICT competence among the Kilifi County Government staff may significantly influence electronic procurement performance.

Electronic procurement is using electronic platforms and technologies in the procurement process. The process offers numerous advantages, such as increased efficiency, transparency, and cost savings. The Kenyan government has been trying to modernize its procurement practices by

adopting e-procurement systems. According to Chebii (2016), it is crucial to understand the elements that influence electronic procurement performance to identify the factors influencing its success or failure in the context of the Kilifi County Government.

1.2 Statement of the Problem

Electronic procurement is using electronic platforms and technologies in the procurement process. The process offers numerous advantages, such as increased efficiency, transparency, and cost savings. The Kenyan government has been trying to modernize its procurement practices by adopting e-procurement systems and like many other governmental entities, Kilifi County Government in Kenya has recognized the potential benefits of electronic procurement and has implemented it in its procurement practices (Choga and Kipkorir, 2017). Oketch (2014) notes that despite the potential benefits of e-procurement, such as increased efficiency and cost reduction, the counties have not fully embraced this technology, largely due to gaps in the existing ICT framework. Studies on e-procurement performance in Kenya have explored factors such as top management support, ICT adoption, and public domain adoption. However, a gap exists in Kilifi County Government, despite growing interest in e-procurement research. Key findings highlight the importance of managerial commitment in successful e-procurement projects.

This study, therefore, seeks to discern the factors steering electronic procurement performance within the Kilifi County Government and intends to offer actionable insights to enhance e-procurement efficiency in this specific context.

1.3 Purpose of the Study

This research study aimed at analyzing the elements influencing electronic procurement performance in Kilifi County Government in Kenya

1.4 Objectives of the Study

The study aimed to address the following objectives:

- i.To examine the effect of public procurement regulations on electronic procurement performance in Kilifi County Government.
- ii.To establish the effects of staff competence in ICT on electronic procurement performance in Kilifi County Government.
- iii.To identify the effect of managerial commitment on electronic procurement performance in Kilifi County Government.
- iv.To assess the impact of information communication technology infrastructure on electronic procurement performance in the Kilifi County Government.

1.5 Research Questions

The following questions guided the research:

- i.To what extent do public procurement regulations affect electronic procurement performance in Kilifi County Government?
- ii.How does staff competence in information and communication technology (ICT) influence electronic procurement performance in Kilifi County Government?
- iii.How does managerial commitment impact electronic procurement performance in the Kilifi County Government?
- iv.How does information communication technology infrastructure affect electronic procurement performance in Kilifi County Government?

1.6 Significance of the Study

The significance of this study lay in its contribution to the understanding and enhancement of electronic procurement performance in the counties. This study had several essential implications by examining elements that influence electronic procurement. Firstly, the findings of this study provided valuable insights to policymakers and government authorities involved in procurement practices in Kilifi County Government. Understanding the impact of public procurement regulations, staff competence in ICT, managerial commitment, and information communication technology infrastructure on electronic procurement performance assisted in making informed decisions and formulating effective policies and strategies to improve the efficiency and effectiveness of electronic procurement. Secondly, the study benefited practitioners involved in electronic procurement processes within Kilifi County Government. By identifying the key factors that affect electronic procurement performance, practitioners can develop targeted training programs to enhance staff competence in ICT, improve managerial commitment, and prioritize investments in information communication technology infrastructure. This contributed to developing a skilled workforce and providing adequate resources, ultimately leading to better electronic procurement outcomes.

Furthermore, the study's findings had broader implications for the field of public procurement in Kenya. As electronic procurement continues to gain importance and recognition, the insights from this study can be applied to other counties and government entities across the country. The findings informed the development of best practices, guidelines, and standards for implementing and improving electronic procurement systems, thereby advancing procurement practices at a national level.

1.7 Scope of the Study

The study analyzed the elements that influence electronic procurement performance, specifically within the context of the Kilifi County Government in Kenya. The study investigated the effect of public procurement regulations, staff competence in ICT, managerial commitment, and information communication technology infrastructure on electronic procurement performance in the Kilifi County Government. Additionally, the research involved collecting data from relevant stakeholders, including procurement officials, ICT personnel, and managerial staff within the county government.

Moreover, the study encompassed a comprehensive analysis of the electronic procurement practices and systems implemented by the Kilifi County Government. It explored the extent to which public procurement regulations are adhered to, the level of staff competence in ICT, the degree of managerial commitment, and the quality of information communication technology infrastructure. The research aimed to analyze the elements influencing electronic procurement performance within the county government. The study was carried out from 25th July to 15th September 2023

1.8 Limitations of the Study

Despite the valuable insights that this study aimed to provide, it is essential to acknowledge certain limitations that might affect the generalizability and comprehensiveness of the findings. Firstly, the study's scope was limited to Kilifi County Government in Kenya. Therefore, the findings might not directly apply to other counties or governmental entities in the country, as procurement practices and contextual factors may vary. Replicating the study in different settings would be necessary to validate the findings and ensure broader applicability.

Secondly, the study relied on self-reported data and participants' perceptions, which might introduce biases or inaccuracies. However, to mitigate this limitation, efforts were made to ensure data

collection procedures are rigorous and reliable, and multiple data sources were being utilized whenever possible.

Thirdly, the study's timeframe and available resources limited the depth of analysis. Conducting a comprehensive examination of all aspects of electronic procurement might be challenging within the constraints of time and resources. Therefore, certain aspects or sub-factors might not receive extensive exploration.

Lastly, external factors beyond the study's control, such as changes in legislation or organizational restructuring, might impact the electronic procurement performance during the study period. These external influences may introduce confounding variables that are beyond the scope of the research. While these limitations were acknowledged, efforts were made to ensure the study provided valuable insights and recommendations within its specific scope and context while highlighting areas for further research and exploration.

1.9 Delimitations of the Study

To maintain focus and ensure a manageable scope, this study had certain delimitations that define its boundaries and limitations. Firstly, the study focused on the analysis of elements that influence electronic procurement performance in Kilifi County Government, Kenya. It did not explore the broader aspects of public procurement or other sectors outside the county government context. Therefore, the findings might not directly apply to other industries or sectors.

Secondly, the study primarily relied on data collected from stakeholders within Kilifi County Government, such as procurement officials, ICT personnel, and managerial staff. While their perspectives and experiences were valuable for analyzing the elements that influence electronic procurement performance, the study did not include perspectives from external stakeholders, such as suppliers or contractors. Additionally, the study assumed that the data collected from participants

accurately represents the overall situation in the Kilifi County Government. However, response biases or incomplete information are possible, which may impact the findings.

Lastly, the study had a specific data collection and analysis time frame. The study did not capture any changes or developments in electronic procurement practices occurring after the data collection period. However, by acknowledging these delimitations, the study maintained its focused approach and provided valuable insights within its defined scope.

1.10 Assumptions of the Study

The study was based on several assumptions to guide the research process and interpretation of findings. Firstly, the study assumed that the electronic procurement systems and practices in Kilifi County Government are implemented and operated following existing public procurement regulations.

The study assumed that the regulations are followed reasonably, although variations in compliance may exist. Secondly, the study assumed that the participants, including procurement officials, ICT personnel, and managerial staff, provided accurate and reliable information during data collection. The participants were assumed to respond honestly and to the best of their knowledge, minimizing response biases and inaccuracies.

Thirdly, the study assumed that the sample population selected for data collection is representative of the broader population within the Kilifi County Government. Based on the selected sample, the findings were assumed to reflect the electronic procurement performance within the county government.

Lastly, the study assumed that the research instruments used, such as questionnaires, were valid and reliable for collecting data for analyzing the elements that influence electronic procurement

performance. The instruments were assumed to capture the intended constructs and produce consistent results accurately. These assumptions guided the study and form the basis for data collection, analysis, and interpretation of the findings. However, they were recognized as potential limitations and subject to scrutiny to ensure the accuracy of the study's outcomes.

1.11 Operational Definition of Key Terms

Electronic procurement performance: Refers to the effectiveness and efficiency of electronic procurement processes and outcomes in terms of timeliness, accuracy, transparency, cost-effectiveness, and overall satisfaction with the electronic procurement system.

Public procurement regulations: Refers to the legal framework and guidelines set forth by the Kenyan government, specifically the Public Procurement and Disposal Act (2015), which governs the procurement processes in public sector.

Staff competence in ICT: Refers to the level of knowledge, skills, and capabilities of staff members in utilizing information and communication technology tools and systems relevant to electronic procurement processes. It includes the ability to operate electronic procurement software effectively, utilize digital platforms, and perform tasks related to electronic procurement with proficiency.

Managerial commitment: Refers to the support, involvement, and dedication demonstrated by top-level management in promoting and prioritizing the effective implementation and utilization of electronic procurement systems via allocating resources, providing training opportunities, and engaging in decision-making related to electronic procurement.

Information communication technology infrastructure: Refers to the physical and technological resources required for the smooth functioning of electronic procurement systems. This includes hardware (computers, servers, networking devices), software (procurement software, security

systems), internet connectivity, and other relevant infrastructure components necessary to operate electronic procurement processes.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The chapter undertook a literature review on the elements that influence electronic procurement performance in the Kilifi County government, Kenya. This chapter discussed the empirical literature, theoretical framework and conceptual framework, and finally, the chapter contains a summary of the literature review.

2.1 Theoretical Framework

This section examined the theories that govern the study. The study was governed by three main approaches: Lean Procurement, Supply Chain Integration, and Technology Acceptance Theory. The section also highlights the criticism of the theories.

2.1.1 Lean Procurement Theory

The lean procurement theory, derived from the broader concept of lean management, traces its roots to the Toyota Production System (TPS) developed by Toyota in the 1940s (Haugland, 2015). TPS focused on eliminating waste, reducing costs, and improving efficiency in manufacturing processes (Haugland, 2015). Over time, lean management principles, including lean procurement, have been adopted and adapted in various industries and sectors.

The core concept of lean procurement theory is to create value by minimizing waste and maximizing efficiency in procurement processes (Flynn and Davis, 2014). The theory postulates that organizations can streamline their procurement operations, reduce costs, and improve overall performance by identifying and eliminating non-value-adding activities. Lean procurement theory

emphasizes the importance of understanding and mapping the entire procurement process to identify waste areas, such as excess inventory, unnecessary handling, and delays (Flynn and Davis, 2014).

According to Haugland (2015), the main principle of lean procurement theory is just-in-time (JIT) inventory management. This approach advocates for minimizing inventory levels and procuring goods and services only when needed. Haugland (2015) notes that by adopting JIT principles, organizations can reduce inventory holding costs, improve cash flow, and respond more effectively to changes in demand. In the context of electronic procurement in the Kilifi County Government, lean procurement theory suggests optimizing inventory management through electronic systems can lead to cost savings and improved resource allocation (Maeri, 2022).

Lean procurement theory emphasizes continuous improvement (Waterman and McCue, 2012). The theory posits that organizations should continuously strive for excellence by identifying opportunities for improvement, setting targets, and implementing changes (Waterman and McCue, 2012). This involves establishing a learning culture, empowering employees, and encouraging cross-functional collaboration. Therefore, organizations can enhance their procurement processes and achieve better outcomes by embracing a continuous improvement mindset. For Kilifi County Government, this perspective implies fostering a culture of innovation and continuous learning using electronic procurement systems.

In the context of this study, the lean procurement theory offers valuable perspectives for understanding and improving electronic procurement performance in Kilifi County Government. The theory suggests that the county government can optimize its procurement processes and enhance overall efficiency by applying lean principles, such as value stream mapping, JIT inventory management, continuous improvement, and employee empowerment. From a value stream mapping

perspective, the study will explore the existing procurement processes in Kilifi County Government and identify areas of waste and inefficiency. This will guide the implementation of electronic procurement systems that streamline processes, reduce cycle times, and minimize delays.

Moreover, the JIT inventory management perspective encourages the study to assess how utilizing electronic procurement systems in the Kilifi County Government enables efficient inventory management. As Choga and Kipkorir (2016) contend, by adopting JIT principles and leveraging electronic systems for real-time inventory tracking and replenishment, the county government optimizes inventory levels, reduces costs, and improves resource allocation.

The continuous improvement perspective highlights the need for ongoing monitoring and evaluation of electronic procurement performance. The study investigates how Kilifi County Government can collect and analyze data on procurement processes, identify improvement opportunities, and implement changes to drive continuous improvement. This perspective emphasizes leveraging electronic procurement systems for data-driven decision-making and performance measurement. Lastly, the employee empowerment perspective suggests that the study should consider the role of employees in successfully utilizing electronic procurement systems (Chebii, 2016). The county government enhances staff competence and engagement by empowering employees, providing training, and fostering a culture of innovation and ownership, leading to improved electronic procurement performance. In summary, the lean procurement theory offers valuable perspectives for the study with its concepts of value stream mapping, JIT inventory management, continuous improvement, and employee empowerment.

2.1.2 Supply Chain Integration Theory

Supply Chain Integration (SCI) theory focuses on the collaboration and coordination among various entities within a supply chain to achieve operational efficiency, improve customer satisfaction, and gain a competitive advantage (Fabbe-Costes and Jahre, 2008). The theory emphasizes integrating processes, information, and resources across different stages of the supply chain (Fabbe-Costes and Jahre, 2008). In the context of this study, the Supply Chain Integration theory provides insights into the factors that affect electronic procurement performance in Kilifi County Government.

Supply Chain Integration theory emerged in the 1990s as a response to supply chains' increasing complexity and interdependence (Perdana et al., 2019). Perdana et al. (2019) opine that the theory was influenced by the work of researchers such as Mentzer, Stank, and Esper, who highlighted the importance of collaboration and information sharing among supply chain partners. The theory has since evolved, incorporating technological advancements and the growing recognition of the significance of supply chain integration for organizational success (Perdana et al., 2019).

Supply Chain Integration theory postulates that effective collaboration and coordination among supply chain partners improve performance and competitiveness (Flynn et al., 2016). The theory recognizes that supply chains are dynamic systems involving multiple entities, including suppliers, manufacturers, distributors, and customers (Flynn et al., 2016). According to Flynn et al. (2016), the theory emphasizes integrating processes, information, and resources to achieve seamless flow and coordination across the supply chain.

Perdana et al. (2019) opine the critical concept of Supply Chain Integration theory is information sharing. The authors note theory emphasizes the importance of real-time, accurate, and relevant information exchange within supply chain partners. Therefore, by sharing information on demand

forecasts, inventory levels, production procedures and customer requirements, organizations can better align their procurement activities, optimize resource allocation, and enhance responsiveness to market dynamics.

Additionally, Flynn et al. (2016) posit that another concept of Supply Chain Integration theory is collaboration. The authors assert that the theory advocates for close cooperation and joint decision-making among supply chain partners. Collaborative activities include joint planning, forecasting, and problem-solving (Flynn et al., 2016). Through collaboration, organizations tend to leverage the strengths and capabilities of each supply chain partner, improve efficiency, and achieve mutual benefits.

From a Supply Chain Integration perspective, the present study examines how electronic procurement systems in Kilifi County Government facilitate supply chain integration. The theory enables exploration of the extent to which the systems enable information sharing and collaboration among procurement officials, suppliers, and other stakeholders. The study investigates how integrating processes and information across the procurement cycle improves performance. Additionally, the study analyzes the impact of supply chain integration on key performance indicators such as procurement cycle time, cost savings, supplier performance, and customer satisfaction. Moreover, the study assesses how supply chain integration, facilitated by electronic procurement systems, leads to enhanced efficiency, reduced lead times, and improved overall performance.

Furthermore, the study explores the role of technology in enabling supply chain integration in the Kilifi County Government. As Chebii (2016) asserts, the study investigates the capabilities and functionalities of electronic procurement systems, such as their integration with other information

systems, their ability to provide real-time data and analytics, and their support for collaboration among stakeholders. Lastly, the study assesses how technology-enabled integration influences electronic procurement performance within the county government. By incorporating these perspectives, the study provides insights into the role of supply chain integration in driving procurement performance. It offers recommendations for leveraging electronic procurement systems to enhance the county government's supply chain integration.

2.1.3 Technology Acceptance Theory

The Technology Acceptance Theory (TAT) delves into the perceptions and acceptance of technology by individuals (Li, 2020). The theory analyses various elements that impact technology adoption, including user attitudes, perceived usefulness, perceived ease of use, and external factors (Li, 2010). In this research context, TAT provides a lens to view the elements that influence electronic procurement performance within the governance of Kilifi County.

Fred Davis first introduced the Technology Acceptance Theory in 1986 to comprehend user acceptance and utilization of information systems better (Li, 2010). The theory was conceived based on previous research in psychology and social sciences, such as the Theory of Reasoned Action and the Theory of Planned Behaviour (Li, 2020). Since its origin, TAT has found extensive application across various technology adoption scenarios, including electronic procurement.

TAT's core principle revolves around the acceptance and adoption of technology (Momani and Jamous, 2017). As per the theory, an individual's intention to utilize technology is shaped by their perception of its utility and ease of use. Individuals are more likely to embrace and employ technology when they deem it beneficial for their goals and consider it user-friendly (Momani and Jamous, 2017). TAT also accounts for external variables like social influence and facilitating

conditions that affect technology acceptance (Momani et al., 2017). Social influence involves the effect of others' views, norms, and suggestions on an individual's technology acceptance (Momani et al., 2017). Facilitating conditions refer to the presence of necessary resources, support, and infrastructure for the application of technology.

Drawing from the Technology Acceptance Theory perspective, this study examines the factors that shape the acceptance and adoption of electronic procurement systems within the Kilifi County Government. As stated by Chebii (2016), TAT facilitates an examination of attitudes and perceptions towards technology held by procurement officials and other stakeholders. The research evaluates how the perceived usefulness and ease of use of electronic procurement systems influence their intended and actual use.

Additionally, this study considers the role of social influence in technology acceptance. It investigates how the opinions and recommendations of colleagues, superiors, and other stakeholders shape the acceptance and usage of electronic procurement systems. Understanding these social influence dynamics can offer strategies for promoting technology acceptance and fostering a conducive environment for electronic procurement within Kilifi County Government. In summary, through its concepts of perceived usefulness, perceived ease of use, social influence, and facilitating conditions, the Technology Acceptance Theory provides valuable insights for comprehending and enhancing electronic procurement performance within Kilifi County Government.

2.2 Conceptual framework

The conceptual framework visually represents the relationship between the dependent variable (electronic procurement performance) and the independent variables (public procurement regulations, staff competence in ICT, managerial commitment, and information communication technology infrastructure). The conceptual framework illustrates how these variables interact and influence electronic procurement performance (Kahiu, 2015). By analyzing the relationships in the conceptual framework, the study examines how public procurement regulations, staff competence in ICT, managerial commitment, and information communication technology infrastructure influence electronic procurement performance in Kilifi County Government. Through data collection and analysis, the study will provide insights into the strength and significance of these relationships and their overall contribution to electronic procurement performance.

INDEPENDENT VARIABLE

DEPENDENT VARIABLE

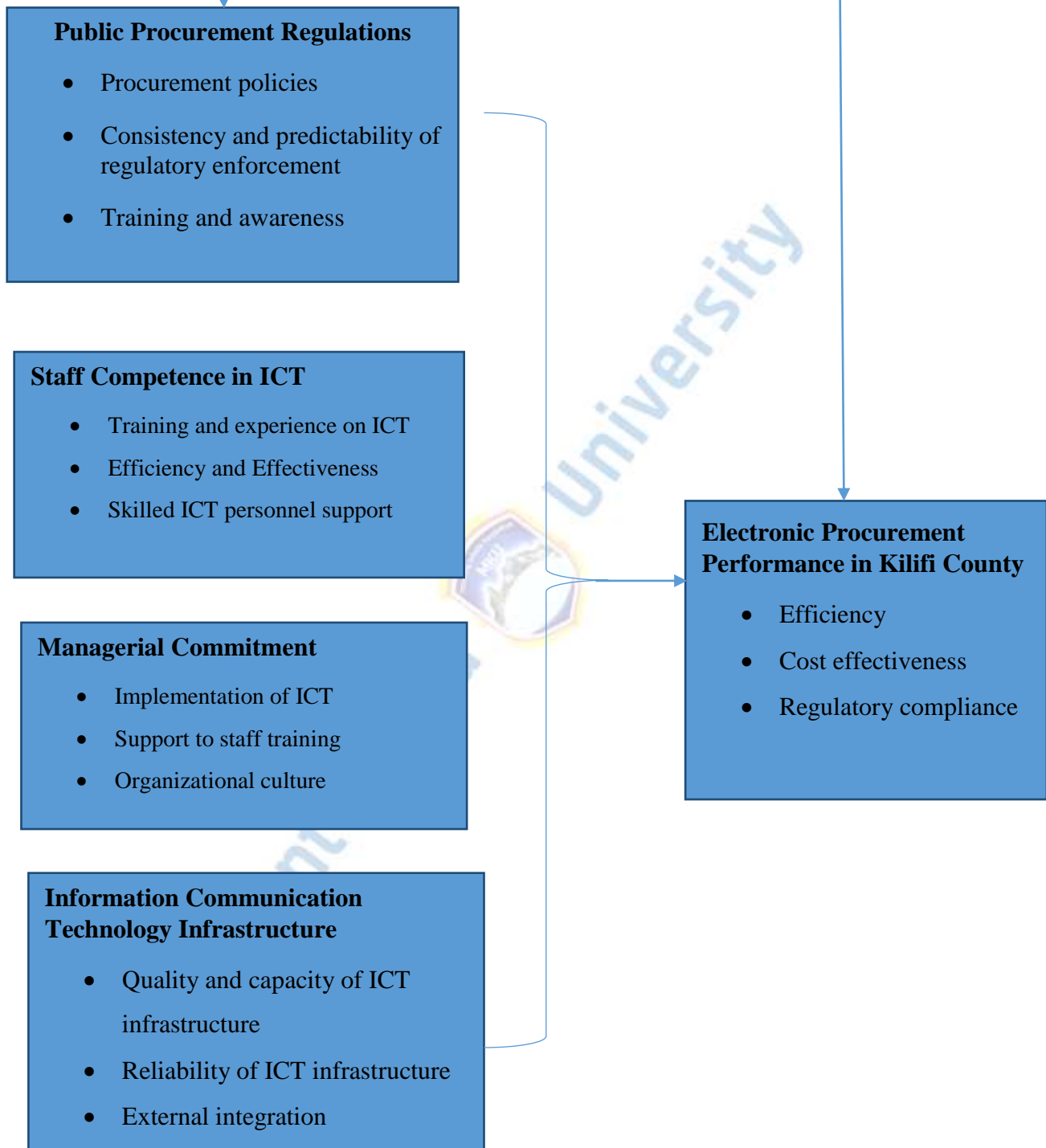


Figure 1: Conceptual Framework

Source: Researcher (2024)

2.2.1 Effect of Public Procurement Regulations on Electronic Procurement Performance

Lwiga (2017) argues that several studies have examined the influence of public procurement regulations on electronic procurement performance. For instance, Maeri (2022); Mohammed (2018); Chebii (2016) carried out a study on the impact of e-procurement regulations on procurement effectiveness in the public sector. Their findings suggested that well-designed regulations positively affected electronic procurement performance, increasing efficiency, transparency, and cost savings. However, these studies predominantly focus on the impact of regulations on procurement effectiveness in general rather than explicitly exploring their effect on electronic procurement performance within a specific organizational context.

The growth of public procurement in Africa has resulted in the creation of specialized organizations tasked with implementing new rules. These organizations play a significant role in ensuring the effective execution of the laws and focusing on domestic legislation. They are increasingly responsible for keeping an eye on the public procurement process. Comprehensive regulatory frameworks, secondary laws, training programs, manuals, and instructions have been created and made available to various procurement institutions and potential bidders to support the correct implementation of the law's requirements (Choga and Kipkorir, 2017).

Kahiu (2015) notes a research gap regarding how public procurement regulations influence electronic procurement performance in Kilifi County Government. Therefore, understanding how the county government's adherence to these regulations impacts the effectiveness of electronic procurement processes is essential for improving the performance of electronic procurement systems within the county. The Public Procurement and Disposal Act 2015 and the regulations of 2006 are the guidelines used to ensure compliance with procurement processes in Kenya. Failure to comply with the act and regulations by government agencies results into rampant unethical practices in

Kenya. Further amendment of the procurement regulations in 2006 has been a key milestone towards public procurement reforms, which has greatly enhanced procurement systems efficiency in state corporations (Nzambu, 2015). The government of Kenya implemented these reforms upon realization that there was need to continuously internal procurement policies and procedures.

2.2.2 Effects of Staff Competence in ICT on Electronic Procurement Performance

The influence of staff competence in ICT on electronic procurement performance has been examined in various studies. For example, Maeri (2022) explored the impact of employee IT competence on e-procurement adoption and usage in organizations. Maeri's findings indicated that the level of staff competence in ICT significantly influenced the success and utilization of e-procurement systems. Similarly, Lwiga (2017) investigated the relationship between employee ICT skills and e-procurement performance in the Malaysian public sector, finding that competent ICT skills positively affected e-procurement system usage and overall performance.

With the development of information and communication technologies (ICTs), people's expectations for services, business models and the effectiveness of information exchange and service delivery have significantly changed (Ambali, 2010). Through integrating their information technology (IT) infrastructure, organizational alliances have become more effective due to the broad adoption of information and communication technology, notably the introduction of the Internet. Electronic procurement is a crucial information system that has transformed supply chain operations. Electronic procurement creates a networked system of internal controls by automating public financial procedures, allowing for transparent audit trails and transaction originator identification. This technology has grown essential and is predicted to alter current purchase habits significantly.

While these studies provide insights into the importance of staff competence in ICT for e-procurement performance, there is a research gap regarding the specific context of the Kilifi County

Government. Chebii (2016) suggests that it is crucial to examine the level of staff competence in ICT within the county government and its impact on the performance of electronic procurement processes. Identifying and addressing the areas where competence gaps exist can lead to improved utilization and effectiveness of electronic procurement systems in the Kilifi County Government. Intensive training of the procurement professionals leads to increased responsibility and a clear understanding of procurement regulations regarding unethical behaviours like conflict of interest. However, despite installation of presence of an ethics policy, their level of applicability differs. Recent studies indicate that top level officers in organizations are only strict on adherence of rules and guidelines by the junior staff but they follow less on themselves (Waithaka, 2021).

Performance in procurement is determined by the extent to which the procurement function achieves its set objectives while at the same time maintaining minimum costs in the process (Eyaa, 2011). To this end, effectiveness can only be achieved through staff commitment and expertise in their work, a process which enables an organization to compare the actual against the expected results. Staff competence is therefore the major driver towards achieving organizational goals. Organizational success and competitiveness is greatly anchored on procurement performance as the key driver to service quality improvement. According to Johnson (2011), operational efficiency is measured by the ability of an organization to minimize wastage of inputs while at the same time maximizing resource utilization in a bid to deliver quality products so that customers get value for their money.

Amuhaya (2023) points out that operational efficiency is not only driven by the operational aspects of supply chain control and management, quality control and human resource management but the use of applicable technology plays a very vital role. Technology plays an important role in ensuring efficiency through collection of organizational data, recording it and analyzing it not only to determine the level of profitability but also act as the basis of future planning, monitoring and

evaluation. Operational efficiency is attained through minimizing redundancy and waste while at the same time leveraging the resources that greatly contribute to its success like proper utilization of workforce, technology and business processes (Odunga, 2015).

2.2.3 Effect of Managerial Commitment on Electronic Procurement Performance

The role of managerial commitment in electronic procurement performance has been explored in the literature. Ndiiri (2016) investigated the relationship between top management support and the success of e-procurement projects. Ndiiri's (2016) findings highlighted that strong managerial commitment positively influenced the effective implementation and utilization of e-procurement systems. Similarly, Waithaka and Kimani (2021) examined the impact of top management support on the success of e-procurement projects in the healthcare industry, emphasizing the critical role of managerial commitment in ensuring project success.

However, there is a research gap in understanding the effect of managerial commitment, specifically on electronic procurement performance within the context of the Kilifi County Government. Examining the level of managerial commitment and its influence on the performance of electronic procurement processes will provide valuable insights into the factors that promote or hinder the success of electronic procurement systems in the county government. Financial restraint, strategic and practical resource allocation, utilization, value for money, and integrity in public funds are all goals of electronic procurement. Customized solutions are needed for particular phases of public procurement, including invitation, submission, and review. The Organization for Economic Cooperation and Development (OECD) estimates the significance of effective public procurement processes in producing cost savings of up to 15% of GDP, according to Chebii (2016).

Management's work in an organization is to ensure reduced internal costs that result from operational inefficiency in order to ensure higher gains and success in the volatile operating environment. This can be achieved through streamlining the organization's core processes in order to respond effectively to changing markets cost effectively (Weele, 2016). Managers concerned with public procurement need to ensure constant execution of a focused and continuous change management and program improvement aimed at facilitating positive changes in behavior and culture that ultimately results into an efficient and collaborative procurement program (Chiboiwa, 2010). This positive move results into administrative efficiencies, better contracts, strong vendor relations and quality assurance from the entity.

Management commitment in the procurement process should not only be seen when giving instructions but also in terms of availing the required facilities to aim the procurement personnel. Public sector management is tasked with the responsibility of demonstrating both economic analysis and leadership capabilities in order to manage the cooperative relationships which are crucial to effective contracting. According to Ndiiri (2016), the demands of managerial role come with the challenge to optimize the limited resources. Today, managers face a changing role of integrating people with information technology and using partnerships in order to obtain expertise in procurement processes. Therefore, for E-Procurement system to thrive in any entity, be it public or private, the management should possess the required competencies which are commercial, pragmatic, political and person-centered and should extend to a wide range (Wanyama, 2012). It's therefore worth knowing that the role of management towards the success of E-procurement is greatly an enabling role through provision of the required infrastructure, training, monitoring and evaluation of the success of the whole process.

2.2.4 Impact of ICT Infrastructure on Electronic Procurement Performance

The impact of information communication technology (ICT) infrastructure on electronic procurement performance has been explored in the literature. Osir (2016) investigated the relationship between ICT infrastructure and e-procurement performance in Chinese local governments. His findings indicated that adequate ICT infrastructure significantly contributed to the effectiveness and efficiency of e-procurement processes. Similarly, Nandankar and Ascham (2020) explored the impact of ICT infrastructure on e-procurement success in the Indian public sector, highlighting the importance of reliable hardware, software, and network connectivity for improved procurement outcomes.

However, as Singh and Pania (2021) argue, there is a research gap concerning the specific context of information communication technology infrastructure and its impact on electronic procurement performance. Assessing the quality and adequacy of ICT infrastructure within the county government and examining its influence on the performance of electronic procurement processes are crucial to identifying potential areas for improvement. The infrastructure on which E-procurement runs may be as simple as mobile telephone, laptop computer or a desktop computer enabled by the relevant software. Other supporting technologies like radio Frequency Identification (RFID), Geographic Information System (GIS), Global Positioning System (GPS) and tracking technology aid in the effectiveness of E-procurement. The use of Information Technology in an organization brings the capability to change the cultural structure with the aim of reducing barriers between different functions (Nantage, 2021).

Tools aimed at planning of supply chain management usually integrate resource planning activities in an organization. Some of these planning tools are Material Requirement Planning (MRP), Manufacturing Resource planning (MRP II) and Enterprise Resource Planning (ERP). MRP tool

enables an organization to schedule the production activities in order to meet specific deadlines in relation to the bill of materials, production schedule and inventory levels. This infrastructure enables a strong link between an entity and the supplier in making informed decisions through sourcing right suppliers, standardized supplier qualification, supplier data, tracking supplier performance (KPIs) and promoting supplier diversity (Osri, 2016).

2.3 Electronic Procurement in Kilifi County

Choga and Kipkorir (2017) assert that electronic procurement has gained prominence in Kilifi County Government to improve efficiency, transparency, and accountability in the procurement process. The authors note that one of the critical systems utilized for e-procurement in Kilifi County is the Integrated Financial Management Information System (IFMIS). IFMIS is an automated platform integrating financial management functions, including procurement, budgeting, accounting, and reporting (Maeri, 2022). In Kilifi County, IFMIS is a central hub for managing procurement activities, streamlining processes, and enhancing data accuracy and accessibility.

Waithaka and Kimani (2021) note that, the main advantage of utilizing IFMIS for e-procurement is the automation of procurement processes. The system facilitates the creation of electronic requisitions, automated bid evaluations, and electronic supplier registration (Waithaka and Kimani, 2021). This automation reduces manual paperwork, streamlines workflows, and minimizes the chances of errors or fraudulent activities. IFMIS also promotes transparency and accountability in procurement processes (Waithaka and Kimani, 2021). The system provides real-time access to procurement data, including bid notices, tender evaluations, and contract awards. This transparency ensures procurement activities are conducted fairly and openly, enhancing public trust and reducing corruption risks.

Furthermore, IFMIS enables better financial management and budget control. According to Mohammed (2018), the system integrates procurement data with the county's financial management processes, allowing for better tracking and monitoring of expenditures. This integration ensures that procurement activities are aligned with budgetary allocations, preventing overspending and facilitating efficient financial planning.

However, the effective utilization of IFMIS for e-procurement presents challenges. Kahiu (2015) argues there is a need for continuous training and capacity building of staff members. A study by Chebii (2016) found that ensuring procurement officials and end-users have the necessary skills to operate and navigate the IFMIS platform is crucial for maximizing its potential benefits. Nzambu (2015) also calls for robust IT infrastructure to support the IFMIS system. Reliable internet connectivity, secure servers, and adequate hardware and software resources are essential for the smooth and uninterrupted functioning of the system. Investing in and maintaining such infrastructure is critical for implementing IFMIS and contributing to e-procurement performance in Kilifi County.

In the age of technology, IFMIS plays a significant role in enhancing e-procurement processes in the county governments in Kenya. The system's automation capabilities, transparency features, integration with financial management, and reporting functionalities contribute to improved efficiency, accountability, and financial control. However, addressing training and IT infrastructure challenges will be crucial for ensuring the optimal utilization and effectiveness of IFMIS in supporting e-procurement in the county.

2.4 Recap of Literature Review

The literature review delved into empirical studies centered on the elements that influence electronic procurement performance. This exploration sought to uncover any existing literature voids, setting

the groundwork for the present study in the Kilifi County Government's milieu. This examination unearthed several pivotal insights and results.

Initially, the literature emphasized the ripple effects of public procurement regulations on e-procurement outcomes. Clear-cut regulations emerged as instrumental in bolstering efficiency, transparency, and fiscal prudence. Yet, a discernible gap existed regarding how these regulations specifically influence e-procurement within Kilifi County Government.

Furthermore, the competence of staff in ICT was underscored as a significant element for e-procurement efficacy. Evidence suggested that adept ICT skills could catalyze the adoption and optimization of e-procurement platforms, thereby bolstering performance. Nonetheless, an evident research void lingered concerning ICT proficiency among Kilifi County Government staff and its resultant impact.

The literature also spotlighted the pivotal role of managerial dedication in shaping e-procurement outcomes. A robust managerial resolve, marked by resource dedication and supportive decision-making, was found to be an enabler for the thriving execution and utilization of e-procurement tools. Yet, a lacuna remained in gauging this managerial resolve and its repercussions on e-procurement within the Kilifi County Government's precincts.

Conclusively, the role of robust ICT infrastructure in steering e-procurement success was accentuated. Essential ICT facets like hardware, software, and connectivity emerged as the linchpins for a seamless e-procurement operation. But again, a gap was identified in assessing the caliber and sufficiency of ICT infrastructure in Kilifi County Government's context.

In summation, this literature scrutiny pinpointed a research chasm concerning factors that influence e-procurement in the Kilifi County Government landscape. This encompasses public procurement

guidelines, ICT skillset, managerial dedication, and ICT infrastructure's influence. Drawing inspiration from these literature insights, the current study aspires to bridge these gaps, thereby enriching the knowledge pool and offering strategic guidance for refining e-procurement in Kilifi County Government.



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter encompasses the research design, the intended population, the sample size and sampling method, the tools used for research, the procedure for data collection, data interpretation methods, and ethical considerations.

3.1 Research Design

A research design acts as a comprehensive blueprint for conducting scientific inquiries, ensuring that the research is carried out logically and systematically to address its objectives (Saunders, Lewis & Thornhill, 2000). This study employed a descriptive research design to glean insights from the chosen respondents regarding the current state of the phenomena being explored.

Descriptive research focuses on depicting data and attributes related to the population or phenomena in question. As articulated by Mugenda & Mugenda (2012), the goal of descriptive research is to illustrate and communicate the state of affairs as they exist. Kothari (2012) highlights the significance of a descriptive research design, emphasizing its role in safeguarding against biases and ensuring maximum reliability. Opting for this approach is grounded in the need to deeply understand the principal factors affecting the efficiency of electronic procurement in Kilifi County Government.

3.2. Target population

This is a set of items or elements that share characteristics and the researcher intends to generalize results of the study (Mugenda, 2013). The target population for this study was Two hundred individuals working in various roles within Kilifi County Government in Kenya. Specifically, the study aimed to gather insights from key stakeholders involved in the electronic procurement processes within the government organization, including Human resource department; Finance department; Inspectorate Department; ICT department; Procurement Department and Budget committee members. Their input provided valuable information for understanding the elements that impact electronic procurement performance and identifying areas for improvement within the Kilifi County Government.

Table 1: Target Population

Respondents	Population
Human resource department	20
Finance department	55
Inspectorate Department	22
ICT department	30
Procurement Department	60
Budget committee members	13
Total	200

Source: HR, Kilifi County Government (2023)

3.3. Sample and Sampling Technique

According to Kombo and Tromp (2006), a sample is a subset of a broader statistical population, and its characteristics are analyzed to infer information about the entire population. For this study, the researcher employed stratified sampling to choose the participants.

A purposive sampling technique within particular strata was utilized to ensure that individuals with expertise and involvement in electronic procurement activities are included in the study. This approach involved selecting participants based on their knowledge, experience, and responsibilities for electronic procurement within the county government.

The initial step involved obtaining a list of potential participants from the procurement department and other relevant departments involved in the electronic procurement processes. From this list, individuals who meet the criteria for inclusion in the study were purposefully selected to form the sample. The selection criteria included roles such as procurement officers, ICT personnel, managers, and other key stakeholders involved in electronic procurement decision-making and implementation. Mugenda and Mugenda (2013), states that when the study population is less than 10, 000, a sample size of 10 to 30% will be a good representation of the target population. The researcher therefore considers 30% in this case as proper for the analysis. Therefore 60 respondents were considered for this study,

Table 2: Sample Size

Respondents	Sample Size
Human resource department	6
Finance department	17
Inspectorate Department	7
ICT department	9

Procurement Department	18
Budget committee members	4
Total	60

Source: Researcher (2024)

3.4 Data Collection Instrument

The research instrument for this study was a semi-structured questionnaire and was used to collect data on the variables of interest, including public procurement regulations, staff competence in ICT, managerial commitment, information communication technology infrastructure, and electronic procurement performance. This study employed questionnaires due to their ability to efficiently gather a vast amount of standardized data on the selected variables and facilitate objective analysis. According to (Chandran, 2004), questionnaires provide a high degree of data standardization and adoption of generalized information amongst any population.

3.5 Validity of the Research Instruments

Validity refers to the extent to which the research instruments accurately measure what they intend to measure (Pandey and Pander, 2022). The study involved content validity by subjecting the research instruments to expert review to ensure they adequately cover the measured concepts and variables. Additionally, the study involved criterion validity, which involved comparing the results obtained from the research instruments with established criteria or measures.

3.6 Reliability of the Research Instruments

Reliability of the Research Instruments is the measure of how the exploration tool would yields the same outcomes or results after administering the same tools to the same respondents over and over.

Reliability trustworthiness refers to the consistency and stability of the research instruments in producing consistent results over time and across different contexts (Gupta and Gupta, 2021). Reliability was tested through measures such as test-retest reliability, where the research instruments are administered to a sample of participants on two separate occasions to assess the consistency of the results.

To enhance the trustworthiness of the research findings, the study used other techniques, such as triangulation and member checking. Triangulation involved using multiple data sources, methods, or researchers to validate the findings. According to Gupta and Gupta (2021), this process helped to ensure that the results are not solely reliant on a single source or method. In contrast, member checking involved sharing the research findings with the participants to verify the data's accuracy and interpretation, enhancing the research's credibility. In this study, reliability was tested using the internal consistency method that is estimated using Cronbach's alpha. Reliability coefficients of 0.70 or higher are considered adequate (Alvesson & Skoldberg, 2017).

Reliability test in research indicates the overall consistency of a measure (Drost, 2011). The researcher used a construct composite reliability co-efficient popularly referred to as Cronbach alpha to determine the reliability of the survey instrument. This was used to determine whether the instrument consistently measured what it was intended to measure. In this survey, a Cronbach alpha co-efficient less than 0.70 indicated unreliability of the variables hence could not be used to deduce the findings. On the other hand, a Cronbach alpha co-efficient above 0.70 was considered reliable. The Cronbach's Alpha values for the four Likert scales were as per tables 3, 4, 5 and 6 below;

3.7 Data collection methods and procedures

The data for this study was gathered using questionnaires tailored to the research objectives and specific variables of interest. Necessary research permits had been obtained from pertinent authorities, including the National Commission for Science and Technology (NACOSTI) and Mount Kenya University, affirming the study's strict academic intentions. Each questionnaire came with an accompanying cover letter, ensuring participants of the anonymity and confidentiality of their responses. An approval letter has been secured from the School of Postgraduate Study at Mount Kenya University. All research activities strictly complied with the ethical standards and regulations for research that involved human participants.

3.8 Data Analysis and Presentation

The analysis approach of this study leveraged both qualitative and quantitative methodologies to interpret data obtained from semi-structured and structured questionnaires. Quantitative data underwent statistical evaluations. Before analysis, this data was refined, coded, and input into the Statistical Package for Social Sciences (SPSS) software, version 24. Descriptive statistical measures, like means and standard deviations, summarized the survey results. To discern relationships and connections among variables, the researcher used inferential statistical methodologies such as correlation, regression analysis, and chi-square tests. This rigorous statistical assessment numerically substantiated and measured the influence of various independent variables on electronic procurement performance.

The following regression model was adopted:

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

Y = Electronic procurement performance

The β_0 is the Constant Term; $\beta_1, \beta_2, \beta_3, \beta_4$ = Beta coefficients

X_1 = Public Procurement Regulations; X_2 = Staff Competence in ICT; X_3 = Managerial Commitment; X_4 = Information Communication Technology Infrastructure and ε = Error term

3.9 Ethical Considerations

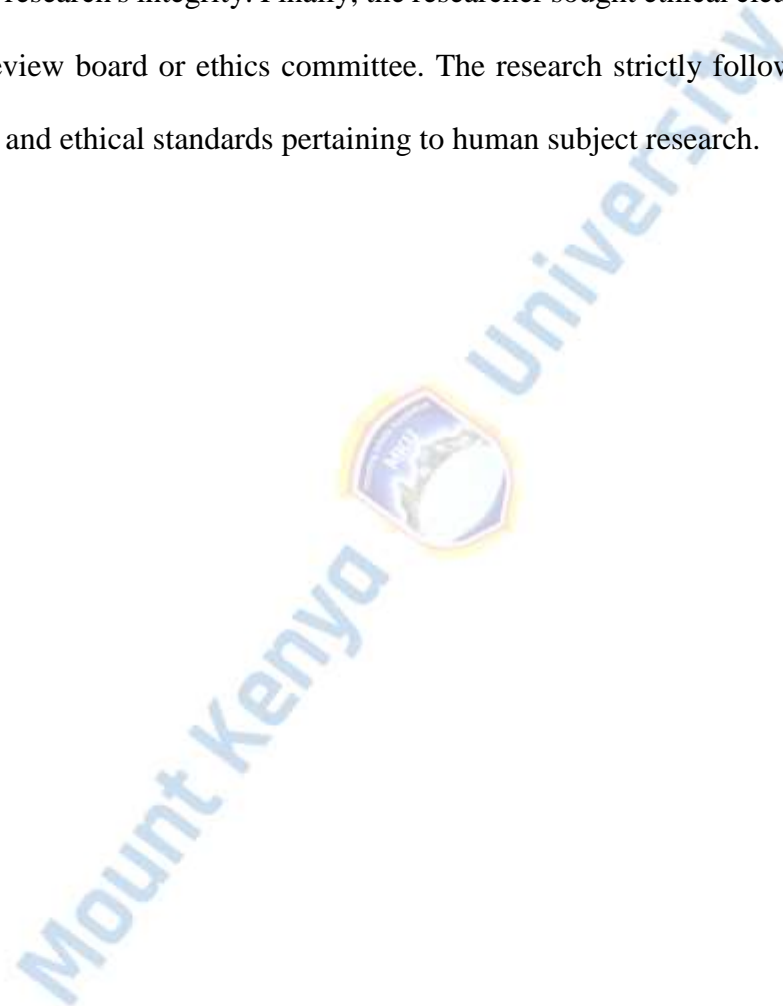
Ethical considerations hold a crucial role in any research involving human subjects, as outlined by Pandey and Pandey (2021). Several ethical aspects were handled in this research to guarantee the rights, safety, and privacy of the participants. To begin with, all participants were given extensive details regarding the study's objectives, methods, potential risks, and advantages. Furthermore, they were given the opportunity to raise queries and make a conscious decision regarding their involvement. A key step was to gain informed consent from all participants to confirm their voluntary engagement in the study.

Confidentiality was ensured for all participants involved. Any personal identifiers were eliminated from the gathered data, and the participants' responses were anonymized during data evaluation and presentation. The data was only accessible to the researcher involved in the study, safeguarding individual participant's information.

Moreover, precautions were enforced to secure the privacy and safety of the participants' data. For instance, all electronic data was securely stored with limited access, and physical documents were

securely locked. The data was preserved for the necessary period and securely discarded after the study's completion.

Furthermore, the researcher maintained neutrality and objectivity throughout the research. Any personal biases or potential conflicts that may impact the research results were recognized and addressed, ensuring the research's integrity. Finally, the researcher sought ethical clearance from the relevant institutional review board or ethics committee. The research strictly followed the ethical guidelines, regulations, and ethical standards pertaining to human subject research.



CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.0 Introduction

This chapter consists of results from the analyzed data in form of graphs, charts and tables. This is in line with general information and the study objectives as presented in the questionnaire. The demographic information is presented first, then followed by descriptive, correlation and regression analysis of the study variables.

4.1 General Information

This section comprises of the respondents' gender, their age group, current departments that they are attached, their highest academic achievements, their roles in the organization and the duration that they have spent in their current roles. All the 60 questionnaires that the researcher issued to the respondents were dully filled and returned thus indicating a 100% response rate. According to Mugenda and Mugenda (2003), any response rate above 50% is usually adequate.

4.1.1 Respondents' Gender

Here, the researcher sought to know the gender of the respondents. From the results obtained, the majority of the respondents were males (76.7%), while the female gender accounted for (23.3%). This is indicated in table 3 below;

Table 3: Respondents' Gender

Gender	Frequency	Percentage
Male	46	76.7
Female	14	23.3
Total	60	100

4.1.2 Age Group

The researcher also considered the age group of the respondents. The results obtained are as per table 4 below.

Table 4: Age Group

Age Group	Frequency	Percentage
18 – 25 Years	5	8.3
25 – 35 Years	21	35
35 – 45 Years	28	46.7
Above 45 Years	6	10
Total	60	100

From the findings, the sample of the population comprised of relatively young people. This is because majority of the respondents (46.7%) were aged between 35–45 years. Those aged 25–35 years accounted for (35%), those above 45 years stood at (10%) while the minority were those aged 18-15 years who accounted for (10%) of the respondents.

4.1.3 Respondent's Current Department

The respondents were required to indicate the department where they are attached. The results obtained are as per figure 5 below.

Table 3: Respondents' Department

Department	Frequency	Percentage
Human Resource	6	10
Finance	16	26.7
Inspectorate	7	11.6
ICT	9	15
Procurement	18	30
Budget Committee	4	6.7
Total	60	100

From the findings majority of the respondents (30%) came from the procurement department. Those from the finance department accounted for (26.7%) of the respondents while those from ICT department stood at

(15%). The respondents from inspectorate department contributed (11.6%), human resource department accounted for (10%) while the minority were from budget committee at (6.7%)

4.1.4 Highest Academic Achievement

The researcher sought to know the highest academic achievement attained by each of the respondents.

Their responses are as indicated in Table 6 below

Table 6: Highest Education Level Attained

Education Level	Frequency	Percentage
Diploma	20	33.3
Bachelors' Degree	28	46.7
Masters' Degree	11	18.3
Doctorate	1	1.7
Total	60	100

The results indicate that the respondents are learned with majority of them (46.7%) being bachelors' degree holders, (18.3%) are masters' degree holders, (33%) are diploma holder while only (1.7%) have attained doctorate level.

4.1.5 Respondents' role in the Organization

Here, the respondents were asked to indicate the various roles that they play in the organization. Their responses are as indicated in Table7 below;

Table 4: Respondents' Designation

Designation	Frequency	Percentage (%)
Senior staff	14	23.3
Junior Staff	32	53.4
Mid-Level Manager	8	13.3
Department Head	6	10
Total	60	100

From the findings above, majority of the respondents (53.4%) were junior staff, (23.3%) were senior staff, (13.3%) were mid-level managers while a minority (10%) were departmental heads.

4.1.6 Duration in the Current Role

In this section, the researcher sought to know the duration that the respondents have stayed in their particular roles, their responses are as per table 8 below;

Table 8: Duration in the current role

Duration	Frequency	Percentage (%)
0 – 4 Years	12	20
5 – 9 Years	22	36.7
10 – 14 years	23	38.3
Over 15 Years	3	5
Total	60	100

The findings indicate that majority of the respondents (38.3%) have stayed in their current role for a period between 10-14 years. Those that had stayed in their current roles for a period between 5-9 years accounted for (36.7%) while (20%) had worked in their current roles for a period between 0-4 years. The minority (5%) had been in their current roles for over 15 years.

4.2 Reliability Analysis

4.2.1 Reliability Analysis of Public Procurement Policies on Electronic procurement performance

The results from table 9 below indicate that the Cronbach's alpha is 0.945 which is an evidence of a high level of internal consistency for the scale. On the other hand, the item-total correlation ranges from 0.676 to 0.935, so the removal of any question would result into a lower Cronbach's Alpha or the alpha remains the same. Therefore, the researcher would not want to remove any of these questions as they improve the reliability of the constructs.

Table 9: Cronbach's Alpha for Public Procurement policies

Scale	Sub-Scale		Corrected Item-Total Correlation	Cronbach's Alpha If item Deleted	Cronbach's Alpha
Public Procurement Policies	A1	Public procurement standards are consistently adhered	.865	.937	.945
	A2	PPDA policy implementation enhances digital procurement outcomes.	.934	.865	
	A3	procurement policies align with broader governmental guidelines	.676	.780	
	A4	There are educational sessions on public procurement policies and standards	.842	.755	
	A5	Kilifi County government ensures adherence to procurement rules	.935	.939	

4.2.2 Reliability Analysis of ICT proficiency and its impact on Electronic procurement performance

Table 10 below shows that the Cronbach's Alpha is 0.955 which indicates a high level of internal consistency for the scale. The item-total correlation ranges from 0.797 to 0.95. this shows that the removal of one question would result into a lower Cronbach's alpha or the alpha remains the same. Therefore, no questions could be removed as they all improve the reliability of the constructs.

Table 10: Cronbach's Alpha for ICT Proficiency

Scale	Sub-Scale		Corrected Item-Total Correlation	Cronbach's Alpha If item Deleted	Cronbach's Alpha
ICT Proficiency	B6	Majority of the procurement team is skilled in ICT	.831	.850	
	B7	Regular ICT tool training sessions are conducted for the procurement team.	.950	.948	
	B8	ICT-killed staff are prioritized during hiring in the procurement department.	.856	.858	.955
	B9	The proficiency in ICT directly impacts digital procurement results	.949	.755	
	B10	The procurement department staff are well-trained and experienced.	.797	.808	
	B11	Proficiency in ICT is fundamental for effective digital procurement implementation.	.951	.836	

4.2.3 Reliability Analysis of management support and Electronic procurement performance

The results in table 11 below show that the Cronbach's Alpha is 0.948 which is an indicator of a high level of consistency for the scale. In addition, the item-total correlation ranges from 0.750 – 0.940, which translates to that the removal of one question would result into lower Cronbach's alpha or the alpha remains the same. All questions therefore contribute towards the reliability of the constructs and hence no question can be removed.

Table 11: Cronbach's Alpha for Management Support

Scale	Sub-Scale	Corrected Item-Total Correlation	Cronbach's Alpha If item Deleted	Cronbach's Alpha	
Management Support	C12	Management is supportive of electronic procurement implementation.	.750	.746	.948
	C13	Sufficient funds and resources from management enhance electronic procurement outcomes.	.948	.939	
	C14	Organizational leadership enforces procurement policies.	.831	.941	
	C15	Leadership actively promotes electronic procurement in the organization.	.940	.803	
	C16	Management shapes the organizational culture towards electronic procurement adoption.	.861	.768	
	C17	Robust managerial backing is crucial for effective electronic procurement.	.938	.813	

4.2.4 Reliability Analysis of ICT infrastructure and Electronic procurement performance

The Cronbach's alpha in table 12 below is 0.971 which indicates a high level of consistency for the scale. The item-total correlation ranges from 0.638 to 0.968 meaning that the removal of one question would result in to lower Cronbach's alpha or he alpha remains the same. All questions are significant and they contribute towards the reliability of the construct and hence no questions can be removed.

Table 12:Cronbach's Alpha on ICT Infrastructure

Scale	Sub-Scale		Corrected Item-Total Correlation	Cronbach's Alpha If item Deleted	Cronbach's Alpha
ICT Infrastructure	D18	Updated technical systems enhance electronic procurement.	.841	.865	.971
	D19	A stable ICT framework is pivotal for electronic procurement operations.	.968	.970	
	D20	Adequate ICT resources directly impact the electronic procurement process's productivity.	.861	.967	
	D21	There are guidelines for ICT infrastructure utilization.	.768	.882	
	D22	ICT is seamlessly integrated into procurement procedures.	.638	.833	
	D23	Updated technical systems enhance electronic procurement.	.822	.855	

4.2.5 Reliability Analysis of Evaluation of Electronic procurement performance

From the results in table 13 below, the Cronbach' alpha is 0.927 which shows a high level of consistency for the scale. The item-total correlation ranges from 0.648 to 0.948 which means that the removal of one question would result to lower Cronbach's alpha or the alpha remains the same. Therefore, the researcher could not remove any question since they all contribute towards the reliability of the construct.

Table 13: Cronbach's Alpha on Electronic procurement performance

Scale	Sub-Scale	Corrected Item-Total Correlation	Cronbach's Alpha If item Deleted	Cronbach's Alpha	
Electronic procurement performance	E24	My County's procurement procedures are optimized.	.948	.944	
	E25	With electronic procurement, operations are more economical in my county.	.766	.881	.927
	E26	Regulatory compliance in procurement is upheld in my County.	.658	.862	

4.3 Influence Of Public Procurement Regulations on Electronic procurement performance

In this section, the researcher sought to understand how public procurement regulations impact on the Electronic procurement performance. The descriptive results are shown in table 14 below and correlation results in table 4.4. from the results, a mean figure of 0.1 – 1.0 indicates strongly disagree, 1.1 – 2.0 indicates disagree, 2.1 – 3.0 indicates neutral, 3.1 – 4.0 indicates agree while 4.1 – 5.0 indicates strongly agree.

Table 5: Descriptive Statistics of Public Procurement Regulations

Statement	N	Mean	Std Deviation
Public procurement standards are consistently adhered to in Kilifi County Government.	60	4.22	0.881
PPDA policy implementation enhances Electronic procurement outcomes.	60	3.86	1.643
Kilifi County's procurement policies align with broader governmental guidelines.	59	3.66	1.446
There are educational sessions on public procurement policies and standards	60	3.92	0.994
Kilifi County government ensures adherence to procurement rules.	59	3.16	1.221
Overall mean Score		3.764	1.237

Source: Research Data (2024)

In this section, the researcher sought to examine the effect of public procurement regulations on electronic procurement performance in Kilifi County Government. From the results displayed in table 14 and with the average mean of 3.764 and standard deviation of 1.237 that Public Procurement Regulations influence Electronic Procurement Performance in Kilifi County. The respondents agreed with the fact that procurement standards are consistently adhered to in Kilifi County Government as indicated by a mean of 4.22 and a standard deviation of 0.881. On the other hand, the respondents agreed with the statement that PPDA policy implementation enhances electronic procurement outcomes as shown by a mean of 3.86 and a standard deviation of 1.643. The respondents also agreed with the view that Kilifi County's procurement policies align with the broader governmental guidelines as per the mean of 3.66 and a standard deviation of 1.446. A mean of 3.92 and a standard deviation of 0.994 is an indication that the respondents agreed with the statement that there are educational sessions on public procurement policies and standards. However, the respondents were neutral with the statement that Kilifi county Government ensures adherence to procurement rules as shown by the mean of 3.16 and a standard deviation of 2.221.

Table 6: Public procurement Regulations on electronic procurement performance

		Public Procurement Regulations	Electronic Procurement Performance in Kilifi County
Public Procurement Regulations	Pearson Correlation	1	.839
	Sig. (2-tailed)		.000
	N	60	60
Electronic Procurement Performance in Kilifi County	Pearson Correlation	.839	1
	Sig. (2-tailed)	.001	
	N	60	60

Correlation is significant at 0.01 level (2-tailed)

This section sought to establish whether there is a significant relationship between Public procurement regulations and Electronic Procurement Performance in Kilifi County. From the findings as shown in table 15, it's evident that there exists a positive significant relationship between procurement regulations and Electronic Procurement Performance in Kilifi County as shown by the correlation coefficient ($r = 0.839, p = 0.000$). This means that strict implementation and adherence to public procurement regulations is likely to influence positively the Electronic Procurement Performance in Kilifi County

4.4 Effects of Staff Competence in ICT on Electronic Procurement Performance in Kilifi County

Here the researcher sought to ascertain the impact of ICT proficiency on electronic procurement performance.

The results obtained from the analysis as per table 16 and the relationship displayed in table 16 below;

Table 7: Descriptive Statistics of Staff Competence in ICT

Statement	N	Mean	Std Deviation
Majority of the procurement team is skilled in ICT	60	3.46	0.447
Regular ICT tool training sessions are conducted for the procurement team	59	3.96	0.671
ICT-skilled staff are prioritized during hiring in the procurement department	59	3.87	0.992
The proficiency in ICT directly impacts electronic procurement results	60	3.97	0.225
The procurement department staff are well-trained and experienced	59	3.67	0.964
Proficiency in ICT is fundamental for effective electronic procurement implementation	60	4.84	1.114
Overall Mean Score		3.96	0.7355

Source: Research Data (2024)

The researcher aimed at examining the Effects of Staff Competence in ICT on Electronic Procurement Performance in Kilifi County. From the results as shown in table 16, with a mean of 3.96 and a standard deviation of 2.202; majority of the respondents agreed that Staff Competence in ICT significantly influence Electronic Procurement Performance in Kilifi County. Also, respondents agreed that the procurement team is skilled in ICT with a mean of 3.46 and a standard deviation of 0.447. The respondents agreed with the statement that regular ICT training sessions are conducted for the procurement team as indicated by the mean of 3.96 and a standard deviation of 0.671. ICT-skilled staff are prioritized during hiring of staff according to the mean of 3.87 and a standard deviation of 0.992 of the respondents. Consequently, a mean of 3.97 and standard deviation of 0.225 indicates that respondents agree with the statement that proficiency in ICT directly influence on electronic procurement results. In addition, the respondents agreed with the view that procurement staff are well-trained and experienced as shown by the mean of 3.67 with a standard deviation of 0.964. They strongly agreed with the statement that proficiency in ICT is fundamental for effective digital procurement implementation as shown by the mean of 4.84 and a standard deviation of 1.114.

Table 8: Correlation Analysis of Staff Competence in ICT on Electronic Procurement Performance in Kilifi County

		Staff Competence in ICT	Electronic Procurement Performance in Kilifi County
	Pearson Correlation	1	0.572
Staff Competence in ICT	Sig. (2-tailed)		.000
	N	60	60
Electronic Procurement Performance in Kilifi County	Pearson Correlation	0.572	1
	Sig. (2-tailed)	.001	
	N	60	60

Correlation is significant at 0.01 level (2-tailed)

From the results in table 17 above, it's evident that there exists a significant positive relationship between Staff Competence in ICT and Electronic Procurement Performance in Kilifi County with the correlation coefficient of ($r = 0.572$, $p = 0.000$). This means that increased Staff Competence in ICT is much likely to influence positively on Electronic Procurement Performance in Kilifi County.

4.5 Effect of Managerial Commitment on Electronic Procurement Performance in Kilifi County

The researcher sought to know the role of Kilifi County Government's role in supporting electronic procurement efficiency. The results obtained are as indicated in table 18 below;

Table 9: Descriptive Statistics of Managerial Commitment

Statement	N	Mean	Std Deviation
Management is supportive of electronic procurement implementation.	60	3.96	0.448
Sufficient funds and resources from management enhance electronic procurement outcomes	57	4.21	0.699
Organizational leadership enforces procurement policies	59	4.14	0.414
Leadership actively promotes electronic procurement in the organization	58	4.36	1.164
Management shapes the organizational culture towards electronic procurement adoption	60	3.98	0.643
Robust managerial backing is crucial for effective electronic procurement	60	4.39	1.224
Overall Mean score		4.173	0.765

Source: Research Data (2024)

The researcher sought to know the Effect of Managerial Commitment on Electronic Procurement Performance in Kilifi County. From the findings displayed in table 18 above, Majority of the respondents with overall Mean score of 4.173 and standard deviation of 0.765. With a mean of 4.21 and a standard deviation of 0.448, respondents agreed with the statement that management is supportive of electronic procurement implementation. In addition, they agreed with the statement that sufficient funds and resources from management enhance digital procurement outcomes with the mean of 4.21 and a standard deviation of 0.699. The respondents agreed with the statement that organizational leadership enforces procurement policies with mean of 4.14. With a mean of 4.36 and a standard deviation of 1.164, the respondents agreed with the view that leadership actively promotes electronic procurement in the organization. The respondents also agreed with the view that management shapes the organizational culture towards electronic procurement adoption with the mean of 3.98 and a standard deviation of 0.643. With a mean of 4.39 and a standard

deviation of 1.224 the respondents agreed with the statement that robust managerial backing is crucial for effective electronic procurement.

Table 10: Correlation Analysis of Managerial Commitment on Electronic Procurement Performance in Kilifi County

		Managerial Commitment	Electronic Procurement Performance in Kilifi County
Managerial Commitment	Pearson Correlation	1	0.627
	Sig. (2-tailed)		.000
	N	60	60
Electronic Procurement Performance in Kilifi County	Pearson Correlation	0.627	1
	Sig. (2-tailed)	.001	
	N	60	60

Correlation is significant at 0.01 level (2-tailed)

From the correlation analysis as shown in the table 19, the findings indicate that there exists a significant positive relationship between the Managerial Commitment and Electronic Procurement Performance in Kilifi County. This is indicated by the correlation coefficient ($r = 0.627$, $p = 0.000$).

4.6 Influence of ICT Infrastructure on Electronic Procurement Performance in Kilifi County

This section sought to understand the significance of ICT infrastructure in Electronic procurement performance. The results obtained were as indicated in table 20 below;

Table 11: ICT infrastructure and Electronic procurement performance

Statement	N	Mean	Std Deviation
Updated technical systems enhance digital procurement	60	3.75	0.442
A stable ICT framework is pivotal for electronic procurement operations	60	3.69	1.641
Adequate ICT resources directly impact the electronic procurement process's productivity	60	3.78	1.167
There are guidelines for ICT infrastructure utilization.	60	4.88	0.743
ICT is seamlessly integrated into procurement procedures	60	4.72	0.114
Overall mean score		4.164	0.8214

Source: Research Data (2024)

This section sought to understand the Influence of ICT Infrastructure on Electronic Procurement Performance in Kilifi County. From the descriptive analysis, ICT Infrastructure Influence Electronic Procurement Performance in Kilifi County with overall Mean score of 4.164 and standard deviation of 0.8214. The findings also indicated that the majority of respondents agreed with the statement that updated technical systems enhance electronic procurement with the mean of 3.75 and a standard deviation of 0.442. Similarly, it was also agreed that a stable ICT framework is pivotal for electronic procurement operations as shown by a mean of 3.69 and a standard deviation of 1.641. The respondents were also in agreement with the statement that adequate ICT resources directly impact the digital procurement processes' productivity as shown by a mean of 3.78 and a standard deviation of 1.167. However, the respondents strongly agreed with the statement that there are guidelines for ICT infrastructure utilization as per the mean of 4.88 and standard deviation of 0.743. Similarly, the respondents strongly agreed with the statement that ICT is seamlessly integrated into procurement procedures as per the mean of 4.72 and a standard deviation of 0.114.

Table 12: Correlation Analysis of ICT Infrastructure on Electronic Procurement Performance in Kilifi

County

		ICT Infrastructure	Electronic Procurement Performance in Kilifi County
ICT Infrastructure	Pearson Correlation	1	0.971
	Sig. (2-tailed)		.000
	N	60	60
Electronic Procurement Performance in Kilifi County	Pearson Correlation	0.971	1
	Sig. (2-tailed)	.001	
	N	60	60

Correlation is significant at 0.01 level (2-tailed)

The correlation analysis findings as shown in table 21, revealed that there exists a significant positive relationship between ICT Infrastructure on Electronic Procurement Performance in Kilifi County. This is indicated by the correlation coefficient ($r = 0.971$, $p = 0.000$).

4.7 Evaluation of Electronic procurement performance

In this section, the researcher sought to evaluate the effectiveness and overall performance of the electronic procurement performance. The results obtained are as table 22 below;

Table 13: Evaluation of Electronic procurement performance

Statement	N	Mean	Std Deviation
My County's procurement procedures are optimized	60	3.77	0.851
With digital procurement, operations are more economical in my county	59	3.64	0.121
Regulatory compliance in procurement is upheld in my County	60	3.94	0.338
Overall Mean Score		3.783	0.437

Source: Research Data (2024)

Descriptive analysis of Electronic Procurement Performance in Kilifi County was done in this section and the majority of the respondents agreed that there is an increase in Electronic Procurement Performance in Kilifi County with mean of 3.783 and a standard deviation of 0.437. The findings indicate that the county's procurement procedures are optimized with a mean of 3.77 and a standard deviation of 0.851. Similarly, the respondents agreed with the stamen that with electronic procurement, the county's operations are more economical with mean of 3.64 and a standard deviation of 0.121 and finally with mean 3.94 and a standard deviation of 0.338, regulatory compliance in procurement is upheld in Kilifi County

Multiple linear regression analysis was also conducted with the aim of ascertaining whether there existed any relationship between the independent and dependent variables. The elements that constituted the independent variable are; procurement regulations, staff competence, managerial commitment and ICT infrastructure

The regression equation used was as follows;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where;

β_0 = Constant

X_1 = Public Procurement Regulations

X_2 = Staff Competence in ICT

X_3 = Managerial Commitment

X_4 = ICT Infrastructure

ε = Standard Error

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Standard Error of Estimate
1	0.671	0.727	0.784	0.3159

a). Predictors (Constant), Public Procurement Regulations, Staff Competence in ICT, Managerial Commitment, ICT infrastructure

b). Electronic procurement performance

The researcher used the R-square to ascertain how the elements that constitute the independent variable vary with the dependent variable. It's a coefficient of determination which was used to show the degree to which a variation or change in the independent variable affects the dependent variable. The results indicated in table 23 above, the four elements that constitute the independent variable constitute (72.7%) of the factors affecting electronic procurement performance in the County Government of Kilifi. This means that the other factors that were not considered under this study and which also affect electronic procurement performance in Kilifi County government account for (27.3%).

The researcher also used Analysis of Variance (ANOVA) in order to establish the significance of the regression model. For any regression model to be considered as significant, the f-significance value (ρ) should not be more than 0.05. this shows that the model should give more than (95%) confidence level otherwise it would give the wrong prediction. The ANOVA results were as per table 24 below.

Table 15: ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.28	4	0.886	42.716	.02(a)
	Residual	1.322	56			
	Total	10.602	60			

a). Predictors: (constant), Public Procurement Regulations, Staff Competence in ICT, Managerial Commitment, ICT infrastructure

b). Dependent Variable: Electronic procurement performance

From the results in table 24 above, ($p < 0.05$) indicating that the regression model has a significance level that is above (95%) thus showing a high reliability of the results. It's therefore safe to use this regression model to ascertain how Public Procurement Regulations, Staff Competence in ICT, Managerial Commitment, ICT infrastructure impacts on electronic procurement performance in the County Government of Kilifi.

Table 16: Coefficient Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std Error	Beta		
Constant	0.124	.39		0.616	.442
Public Procurement regulations	0.535	.022	.548	7.362	.002
Managerial commitment	0.128	.048	.267	4.996	.042
Staff Competence in ICT	0.437	.036	.299	3.006	.016
ICT Infrastructure	0.126	.002	.241	1.775	.008

a). Predictors (Constant), Public Procurement Regulations, Staff Competence in ICT, Managerial Commitment, ICT infrastructure

b). Dependent Variable: Electronic procurement performance

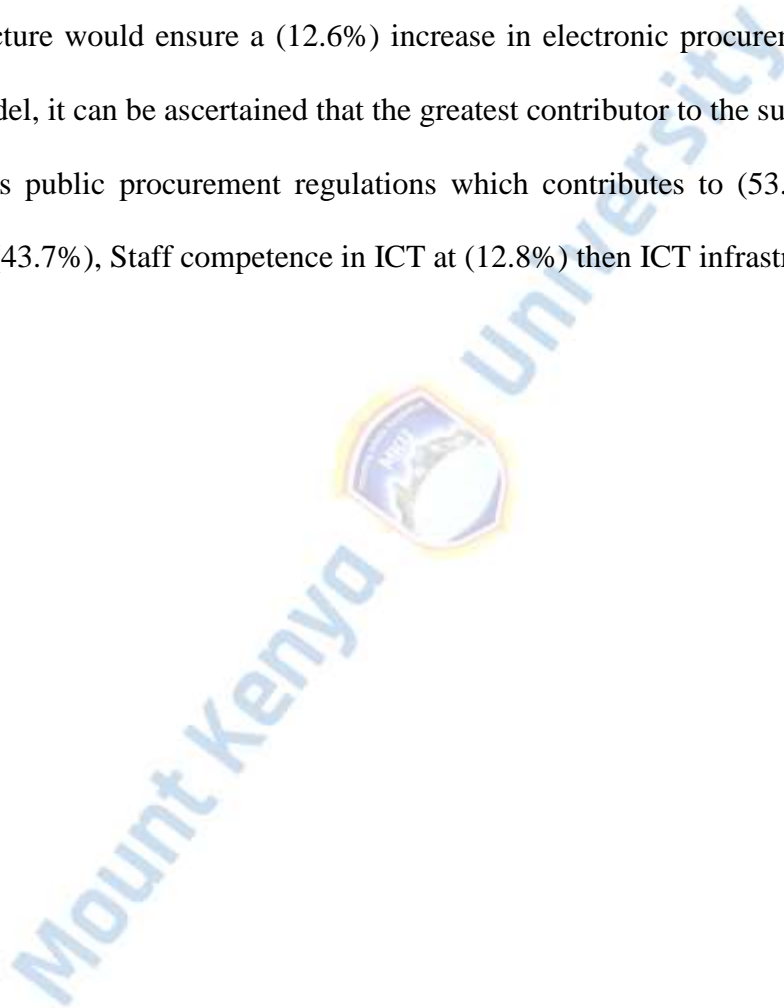
From the Analysis in table 25, Public Procurement regulations X_1 ($\beta = 0.548$, $p < 0.05$) has the strongest relationship with Electronic Procurement Performance in Kilifi County Government, Kenya followed by Staff Competence in ICT X_3 ($\beta = 0.299$, $p < 0.05$). Managerial commitment X_2 ($\beta = 0.267$, $p > 0.05$) and ICT Infrastructure X_4 ($\beta = 0.241$, $p > 0.05$). It was found that all the independent variables had positive significant relationship with procurement performance.

The established regression equation was therefore formulated as below;

$$Y = 0.124 + 0.535X_1 + 0.128X_2 + 0.437X_3 + 0.126X_4 + \varepsilon$$

The regression equation above means that holding the factors (Public Procurement Regulations, Staff Competence in ICT, Managerial Commitment, ICT infrastructure) constant, the electronic procurement

performance in the county government of Kilifi would be (12.4%). Holding all other factors at zero level, a unit increase in public procurement regulations would lead to (53.5%) increase in electronic procurement performance. Similarly, holding all other factor at zero, adherence to staff competence in ICT would lead to (12.8%) increase in electronic procurement performance. An increase in managerial commitment would leads to a (43.7%) increase in electronic procurement performance. All other factors held at zero level, the institution of ICT infrastructure would ensure a (12.6%) increase in electronic procurement performance. Through this regression model, it can be ascertained that the greatest contributor to the success of electronic procurement performance is public procurement regulations which contributes to (53.5%), followed by managerial commitment at (43.7%), Staff competence in ICT at (12.8%) then ICT infrastructure at (12.6%).



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter starts with a brief summary of the previous chapters, conclusions and recommendations for future research. This is done with due regard to the research objectives.

Summary of the Study

5.1.1 Public Procurement Policies and Electronic Procurement Performance in Kilifi County

According to the findings, public procurement regulations are considered to be the greatest contributors to the effectiveness of electronic procurement. However, the respondents were of the view that the County Government of Kilifi does not consistently adhere to the public procurement standards. The abuse of public procurement systems usually occurs as a result of weak and inconsistent enforcement of rules since public procurement regulations are not effectively applied (Nantage 2021). Public Procurement Regulations are essential in ensuring accountability which holds procurement practitioners responsible for their actions. Today, public procurement operates in an environment that is highly interconnected as a result of technology hence much emphasis on accountability.

The findings indicate that the implementation of PPDA policy has been instrumental in enhancing digital procurement outcomes. However, this policy will only be effective where there is the goodwill of both the management and employees. The policies that guide procurement processes majorly mirror around the principles that guide the conduct of procurement practitioners. The principles are instrumental in ensuring human effectiveness in terms of fairness, integrity, honesty, impartiality and excellence. Absence of these principles leads to self-awareness and command and can lead to bias, partial decisions and ultimately conflict of interest. Without self-discipline which is guided by the principles, even the presence of technology will

not ensure effectiveness in the procurement process. Therefore, the institution of public procurement policies in the County Government of Kilifi has not been given much emphasis despite its importance.

From the findings, the respondents agreed with the view that Kilifi County's procurement policies usually align with the broader governmental guidelines. According to Savas (2010), some of the commonly witnessed shortfalls in the planning and management of procurement include needs that are not well estimated, unrealistic budgets as well as procurement officials who are not skilled. Nowadays, governments worldwide are supporting the view that procurement should be integrated in to a more strategic view which improves the value for money. With the County Government of Kilifi failing to align its procurement policies with those of the national government, value for money is not ensured meaning priority projects are not considered and well planned for.

The respondents agreed with the statement that educational sessions on public procurement policies and standards are usually undertaken. This is a good step in the right direction in terms of enhancing professionalism in procurement. However, these training sessions have not yielded the desired results and outcomes since the results also indicated that Kilifi County Government does not ensure adherence to procurement rules. Training should cultivate the art of professionalism which ensures consistency in doing the best in the right way and strict adherence to the set rules and regulations (Raymond 2018).

5.1.2 ICT Proficiency and Electronic Procurement Performance in Kilifi County

The results indicate that majority of the procurement team is not skilled in ICT. This is an implication that there lacks the aspect of professionalism in the procurement department. Procurement as a profession is largely dependent on theoretical knowledge, perfected through frequent training and education which is ultimately tested and examined in the actual workplace coupled with strict adherence to the professional code of ethics (Arrowsmith 2012). Despite the regular training sessions that are carried out by the county government of Kilifi, this is not replicated in the actual workplace. Effectiveness in the procurement

profession is usually as a result of having in place staff that comprises of professionals who are recognized by their respective professional bodies in the country.

The County Government of Kilifi does not prioritize ICT-skilled staff during hiring according to the findings. According to Delaney (2012), governments have attached a lot of importance to the procurement function owing to its strategic nature and therefore need to strictly ensure only well trained and qualified personnel are employed to manage this process. The absence of professionalism coupled with non-conversant with procurement regulations and procedures results into breaches of the codes of conduct through the application of unsound decisions. The findings also indicate that the proficiency in ICT directly impacts on digital procurement results. One aspect that the administration of the County Government of Kilifi does not seem to realize is that professionalism in public procurement does not solely relate to education levels and personal qualifications but the professional approach to the business activities.

The findings seem to dispute the fact that procurement staff in every government entity should be well trained and experienced in their specific fields of specialization. In Kenya, the Kenya Institute of Supplies Management (KISM) is the corporate body that promotes learning, development of best practices and the application of the same to the practice of procurement and supply chain. This body is also actively involved in providing a code which dictates the ethical standards which assists its members to address the ethical dilemmas faced in their line of duty. It's therefore imperative that the County Government of Kilifi finds it necessary to institute mechanisms that enhance professionalism in the procurement staff in order to cope with the dynamics of the procurement profession that are evolving with each passing day. Training is not enough but also monitoring the staff in the actual work place is essential.

5.1.3 Management Support and Electronic Procurement Performance in Kilifi County

The findings indicate that the respondents were in agreement with the statement that the management of Kilifi County Government is supportive of the digital procurement implementation. This is quite encouraging

considering the fact that the results also indicate that respondents agreed with the view that organizational leadership enforces procurement policies. This is in line with a study that was undertaken by Kiragu (2012) on the impact of information technology on the procurement process in Kenya. The study observed that the ability to employ technology in the contracting process relies on the cooperation between the organization that maintains the data and the organization that uses the data.

However, the findings indicated that the County government of Kilifi does not invest sufficient funds and resources to enhance procurement policies. This shows lack of goodwill from the county administration. It's worth noting that significant implementation of procurement practices and subsequent performance is basically a result of staff motivation. The findings also indicated that the respondents disagreed with the view that management shapes the organizational culture towards digital adoption. It has become a matter of concern that public procurement reforms can only be effective when addressed from the management level. Many government functions are currently engaging in undertaking procurement reforms with the major aim of reducing costs while at the same time accelerating the speed with which procurement transactions are undertaken (Mrope,2017).

The findings showed that robust managerial backing is crucial for effective electronic procurement. This is contrary to the kind of investment that the County Government of Kilifi has put in its procurement function. It should be noted that public procurement is a delegated function. This is because public procurement involves the use of government resources, with the procuring entity acting on behalf of the government. Therefore, public procurement is not only regarded as an economic activity but also a legal activity (Chiboiwa 2010). It's therefore necessary for the administration of County Government of Kilifi to invest heavily in terms of both financial and human resources in order to ensure that the procurement function is vibrant and well facilitated in order to undertake its functions effectively.

5.1.4 ICT Infrastructure and Electronic Procurement Performance in Kilifi County

From the findings, it's evident that updated ICT Infrastructure enhances electronic procurement performance. However, from the low investment that the County Government of Kilifi has put in the procurement function, it's less likely that there will be any proportionate outcome in terms of performance. The respondents also agreed with the statement that a stable ICT framework is pivotal for electronic procurement operations. They also agreed with the statement that adequate ICT resources directly impact the electronic procurement process's productivity. This scenario is similar to a study that was undertaken by Eyaa (2011) about why investment of technology in organizations has not been effective. In her study, it was concluded that many countries and entities are still grappling with inefficient and ineffective public procurement despite their hefty investments in financial resources with the aim of bringing reforms in their procurement processes. This was attributed to lack of motivation on the side of the staff.

On the other hand, the respondents disagreed with the statement that there is guideline for ICT infrastructure utilization within the County Government of Kilifi. This means that procurement officers are not limited on the range of activities that they can undertake using the County government's ICT infrastructure. This therefore opens room for manipulation and malpractices in the whole procurement processes. Corruption in procurement thrives where there are no checks and balances because this limits accountability and transparency. This trend is not limited to Kilifi County only since many corruption cases have been witnessed in majority of the 47 counties in Kenya and which mostly involve procurement officers. The respondents also disagreed with the view that ICT is seamlessly integrated in to the procurement procedures. From the findings, it is evident that there are gaps that have not been addressed by the introduction of technology in the procurement process. The County Government of Kilifi seems to be only interested in training of the staff by has not facilitated them with the necessary ICT infrastructure as well as employment of staff with the

necessary skilled and expertise. The level of investment in digitization of the procurement function is still low.

5.2 Conclusions

Based on the findings of this research and the discussions made above, the researcher can confidently make the following conclusions in line with the study objectives;

5.2.1 Public Procurement Regulations and Electronic procurement performance

Despite the significant role that public procurement policies play in enhancing Electronic procurement efficiency, the County Government of Kilifi has not utilized these policies in the procurement function. This is because public procurement standards are not adhered to as shown by the findings. The standards which include procurement policies and procedures are contained in the PPDA Act and act as the basis upon which the procurement process conducted. The findings also show that the county does not align the procurement policies with the broader governmental guidelines. This therefore creates room for procurement malpractices like conflict of interest, supplier collusion and corruption. All these malpractices occur in places where ethical standards are not adhered to and enforced to guide the profession.

5.2.2 ICT proficiency and its impact on Electronic procurement performance

Expertise in any profession is paramount in ensuring smooth running of the processes. However, it's regrettable that the County Government of Kilifi has not embraced professionalism in the procurement function. The findings indicate that majority of the procurement team is not skilled in ICT. With virtually every operation in the national and county governments being digitized, proficiency in ICT is of utmost importance. The results also show that ICT skills are not seriously considered during recruitment of staff. This denies the county the advantage of having professionals and staff who can make direct impact in the procurement function. It should be understood that on-job trainings that are done to enhance professionalism

are costly and usually done over short periods of time which cannot adequately equip the employees for the job ahead of them. Lack of expertise in any job opens the room for mistakes and flaws in procurement processes which may be costly to the county.

5.2.3 Management Support and Electronic procurement performance

The County Government of Kilifi has been supportive in the Electronic procurement implementation. However, the county has not invested sufficient resources both financial and human into the process. For this project to succeed, there should be administration's goodwill and support. Supporting is not enough without action which involves laying the groundwork for implementation, monitoring and evaluation of the whole process. Technology may be expensive to implement and run. It needs investment through finances and human capital and therefore it becomes expensive in the short run. However, the efficiency and effectiveness that it brings goes a long way in ensuring that the county gets the value for money as well as streamlining the whole process. The county should ensure that the procurement function is facilitated with experienced staff to match the installed technology.

5.2.4 Ict Infrastructure and Electronic procurement performance

The ICT infrastructure is essential in facilitating electronic procurement performance. The system should run on a set of hardware which should be in place. The findings show that an updated technical system enhances digital procurement. Adequate ICT resources directly impact the electronic procurement process's productivity. This ICT framework plays a pivotal role for the electronic procurement operations. However, despite the findings finding all these requisite elements appreciated by the county, there lacks guidelines for ICT infrastructure utilization. This paves way to comprise the integrity of the whole procurement process. This inherent problem emanates from the low regard to the set rules and guidelines stipulated in the PPDA act which guide how procurement function should be conducted.

E-procurement is integral to achieving the economic goals of Vision 2030 by promoting efficiency, transparency, and cost-effectiveness in public sector procurement. The streamlined processes and reduced transaction costs associated with e-procurement directly contribute to enhancing the business environment and economic competitiveness of Kilifi County. This alignment with Vision 2030's economic pillar facilitates the creation of a more vibrant and attractive market for both local and international businesses, thereby supporting economic growth and development.

5.3 Recommendations

Having studied the findings, discussed them and made conclusions, the researcher can confidently make the following recommendations in line with the objectives of this study;

5.3.1 Public Procurement Policies and Electronic procurement performance

Policies and guidelines are essential in any process for they stipulate the process on how work should be done. The County Government of Kilifi should ensure not only the implementation of these procurement policies but also enforcement through strict monitoring and evaluation of the progress. The staff should be trained regularly on the importance of the public procurement policies and invite trainers from recognized regulatory bodies in order to equip them with the necessary knowledge on the policies. There should be also a reward and punishment systems for staff who contravene these policies.

5.3.2 ICT proficiency and its impact on Electronic procurement performance

Professional expertise guides the processes of how work is done. The County Government of Kilifi does not embrace personal expertise during the recruitment process of its staff. The recruitment criteria should be designed and followed strictly to ensure that the County hires staff with the necessary job experience and expertise. This will help to eliminate mistakes in the procurement process which may be costly to the county

government and which may go a long way in denying it the value for money. Expertise also speeds up the processes since staff do not need to be coached all the time. The expertise coupled with regular training sessions will enhance performance in the workplace.

5.3.3 Management Support and Electronic procurement performance

Any successful project needs the support and goodwill of the administration or management. This can be done through investment in the process and facilitation through facilities and qualified human resources. The management should also ensure that controls are in place through rule and guidelines that stipulate how the work is done. Management support and goodwill also acts as a motivation to the staff who feel facilitated to undertake their roles within the organization. The County Government of Kilifi should not only ensure that the Electronic procurement system is put in place but also ensure that it's up to date with the technological changes that are dynamic in nature. They should also ensure that experienced and skilled staffs are hired to run the system.

5.3.4 Ict Infrastructure and Electronic procurement performance

ICT infrastructure helps to run the system. The County Government of Kilifi should ensure that it invests heavily in the ICT infrastructure like computers and an effective system as well as reliable internet which will facilitate the electronic procurement efficiency. These might be expensive to purchase and install, however, the enhanced performance goes a long way in minimizing costs that would have been incurred through the use of the manual system. An efficient ICT infrastructure also acts as a motivator to the staff since it lightens up their work through consolidating the voluminous paperwork which is also time consuming. Electronic procurement comes with many advantages which can be enjoyed through having an efficient ICT infrastructure.

The advancement of e-procurement systems directly contributes to SDG 9 by promoting innovative solutions and building resilient infrastructure. The adoption of modern, technology-driven procurement methods enhances the capacity of the government to manage resources efficiently and transparently. This not only supports local economic development but also encourages innovation in public administration, setting a precedent for other counties in Kenya and beyond.

In summary, the advancements in e-procurement within Kilifi County Government have far-reaching implications beyond local administrative efficiency. They contribute significantly to the achievement of the SDGs by fostering economic growth, promoting innovation, enhancing institutional transparency, and building robust partnerships. As Kilifi County continues to develop its e-procurement capabilities, it sets a valuable example of how localized initiatives can drive sustainable development on a global scale.

5.4 Suggestion for further studies.

While this study has provided valuable insights into the elements influencing e-procurement performance in Kilifi County, several areas warrant further investigation to deepen our understanding and enhance the practical application of these findings

5.4.1 Comparative Studies Across Counties

Subsequent investigations may juxtapose e-procurement methodologies and outcomes throughout several Kenyan counties. Comparative assessments of this kind could highlight common issues and effective practices, providing insightful knowledge that is transferable to different local government settings.

5.4.2 Impact of E-Procurement on Supplier Relationships

Examining the ways in which e-procurement technologies affect the interactions between government agencies and their suppliers may shed light on the dynamics of cooperation, openness, and trust.

Comprehending these facets can aid in enhancing e-procurement platforms to more effectively facilitate enduring supplier connections.

5.4.3 Longitudinal Studies on E-Procurement Implementation:

It would be advantageous to conduct long-term studies that monitor the adoption and development of e-procurement systems over time. These studies can look at how early obstacles are overcome, how system functionality and user competence develop, and how these factors affect procurement efficiency and transparency over the long run.

5.4.4 Exploring the Role of Capacity Building:

The effects of various capacity-building techniques on the efficiency of e-procurement systems could be investigated in more detail. More efficient capacity-building programs could be guided by an understanding of how user support and training initiatives affect system adoption and performance.

5.5.5 E-Procurement and SDG Monitoring:

Examining how e-procurement systems inside local governments affect the achievement of particular SDGs in a direct and indirect way could be a worthwhile field of research. This study could provide a stronger connection between the use of technology and sustainable development by creating frameworks and measurements to evaluate how e-procurement helps achieve sustainability objectives.

5.5.6 User Experience and System Usability

In-depth research on the usability and user experience of e-procurement systems may shed light on how best to optimize them for increased user happiness and productivity. Comprehending the problems related to user interface and user interaction may result in e-procurement platforms that are more user-friendly and efficient.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

18th August 2023

Dear Sir/Madam,

I am a student at Mount Kenya University pursuing Master of Science in Procurement Management. I am carrying a research on the analysis of elements influencing electronic procurement performance in Kilifi county government, Kenya, explicitly focusing on the effects of public procurement regulations, staff competence in ICT, managerial commitment, and information communication technology infrastructure. Your input will play a significant role in shaping our understanding of electronic procurement performance and identifying potential areas for improvement. Kindly note that your responses will remain confidential and Personal information will only remain with the researcher and will not be revealed to the third party.

Yours faithfully,



Jane Mwende Mutula

MPSM/2021/85697

Student, Mount Kenya University

APPENDIX II: QUESTIONNAIRE

SECTION A: PERSONAL DETAILS

Please **Tick** (✓) the appropriate answer where required:

1. Please specify your Gender

Male ()

Female ()

2. Age Group

18-25 years ()

25-35 years ()

35-45 years ()

Above 45 years ()

3. Your current department

.....

4. Your highest academic achievement

Diploma ()

Bachelor's degree ()

Master's degree ()

Doctorate ()

5. Your role in the organization

Senior Staff ()

Junior Staff ()

Mid-level Manager ()

Department Head ()

6. Duration in your current role

0-4 years ()

5-9 years ()

10-14 years ()

Over 15 years ()

SECTION B: INFLUENCE OF PUBLIC PROCUREMENT POLICIES ON ELECTRONIC PROCUREMENT PERFORMANCE

Rate your agreement with the statements regarding the impact of public procurement policies on electronic procurement performance (5 = Strongly Agree, 4=Agree, 3= Neutral, 2=Disagree 1 = Strongly Disagree):

Statement	1	2	3	4	5
Public procurement standards are consistently adhered to in Kilifi County Government.					
PPDA policy implementation enhances electronic procurement outcomes.					
Kilifi County's procurement policies align with broader governmental guidelines.					
There are educational sessions on public procurement policies and standards.					
Kilifi County government ensures adherence to procurement rules.					

SECTION C: ICT PROFICIENCY AND ITS IMPACT ON ELECTRONIC PROCUREMENT PERFORMANCE

Share your agreement level on the influence of ICT skillsets on Electronic procurement performance (5 = Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree 1 = Strongly Disagree).

Statement	1	2	3	4	5
Majority of the procurement team is skilled in ICT.					
Regular ICT tool training sessions are conducted for the procurement team.					
ICT-skilled staff are prioritized during hiring in the procurement department.					
The proficiency in ICT directly impacts electronic procurement results					
The procurement department staff are well-trained and experienced.					
Proficiency in ICT is fundamental for effective electronic procurement implementation.					

SECTION D: ROLE OF MANAGEMENT SUPPORT IN ELECTRONIC PROCUREMENT PERFORMANCE

Provide your level of agreement with the statements about managerial support and its effect on electronic procurement (5 = Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree 1 = Strongly Disagree).

Statement	1	2	3	4	5
Management is supportive of Electronic procurement implementation.					
Sufficient funds and resources from management enhance electronic procurement outcomes.					
Organizational leadership enforces procurement policies.					
Leadership actively promotes digital procurement in the organization.					
Management shapes the organizational culture towards electronic procurement adoption.					
Robust managerial backing is crucial for effective electronic procurement.					

SECTION E: SIGNIFICANCE OF ICT INFRASTRUCTURE IN ELECTRONIC PROCUREMENT EFFICIENCY

Rate your agreement with the statements about the influence of ICT infrastructure on electronic procurement (5 = Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree 1 = Strongly Disagree).

Statement	1	2	3	4	5
Updated technical systems enhance electronic procurement.					
A stable ICT framework is pivotal for electronic procurement operations.					
Adequate ICT resources directly impact the electronic procurement process's productivity.					
There are guidelines for ICT infrastructure utilization.					
ICT is seamlessly integrated into procurement procedures.					

SECTION F: EVALUATION OF ELECTRONIC PROCUREMENT EFFICIENCY

Please rate your agreement with the following statements on electronic procurement outcomes (5 = Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1 = Strongly Disagree).

Statement	1	2	3	4	5
My County's procurement procedures are optimized.					
With digital procurement, operations are more economical in my county.					
Regulatory compliance in procurement is upheld in my County.					

Thank you for your Participation

APPENDIX III: CONSENT FORM

AN ANALYSIS OF ELEMENTS INFLUENCING ELECTRONIC PROCUREMENT PERFORMANCE IN KILIFI COUNTY GOVERNMENT, KENYA

Dear Sir/Madam,

I am excited to extend an invitation to you for participation in a research study titled: *“An Analysis of Elements Influencing Electronic Procurement Performance in Kilifi County Government, Kenya.”* As a Master’s student in Procurement and Supplies Management at Mount Kenya University, this research is an integral part of my academic journey. The primary goal is to explore the factors that influence electronic procurement performance in Kilifi County Government.

Enclosed, you will find a questionnaire meticulously designed to capture this data. Your involvement is entirely voluntary, and I want to reassure you of a few things. Firstly, you have the freedom to skip any questions that make you feel uncomfortable. Secondly, participating in this research carries no more risk than one would experience in their everyday life. All your responses will be treated with utmost confidentiality, ensuring anonymity. While the data will be analyzed, only collective results will be shared, protecting your individual responses. Though you might not reap direct benefits from this research, your invaluable insights could potentially benefit future professionals and others who face similar challenges in electronic procurement.

Completing the questionnaire should take you around 30 minutes. If it's not too much trouble, I'd appreciate your prompt return of the filled-out form to aid in the timely progression of my project. Should you have any questions or need further clarity, feel free to reach out to me, Jane Mwendu Mutula, at +254721838367 or jane.mutula2014@gmail.com. Alternatively, you can contact my guide, Dr. Barasa Wamalwa, at 0721203761 or bwamalwa@mku.ac.ke. If you have concerns about your rights as a research participant, please contact the Chairman of the Ethical Review Committee at Mount Kenya University, P.O Box 342-01000, Thika.

Your contribution to this research is deeply valued, and I thank you in advance for considering this invitation.

Consent

By participating, you acknowledge that you've read and understood the information provided. You've had the opportunity to ask questions, and you're aware that your participation is voluntary. You can withdraw at any time without any obligations. A copy of this form will be provided to you for your records. If you agree, please proceed with the questionnaire.


Participant's signature _____ Date 25/07/2024

Investigator's signature _____ Date 25/07/2024

APPENDIX IV:POSTGRADUATE INTRODUCTION LETTER



APPENDIX V: ERC CERTIFICATE


Mount Kenya University

REF: MKU/ISERC/3268
TO: JANE MWENDE MUTULA
Date: 14 October 2023

REG: MPSM/2021/85697

Dear Sir/Madam,

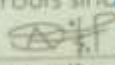
RE: AN ANALYSIS OF ELEMENTS INFLUENCING ELECTRONIC PROCUREMENT PERFORMANCE IN KILIFI COUNTY GOVERNMENT, KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2312**. The approval period is **14/10/2023 - 13/10/2024**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including informed consents, study instruments, MTA will be used
- ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,

The Chairman
Mount Kenya University
Ethics Review Committee
P. O. Box 342 - 0100, Thika

Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC

Main Campus, General Kago Road, P.O. Box 342-01000 Thika
Tel: +254 709 153 000 / +254 709 153 200
Email: info@mku.ac.ke, Web: www.mku.ac.ke
Chartered and ISO 9001 - 2015 Certified Institution
Unlocking Infinite Possibilities

APPENDIX VI: FIELD ENTRY AUTHORIZATION

THE COUNTY GOVERNMENT OF KILIFI



COUNTY PUBLIC SERVICE BOARD

Email: kilifipsb@gmail.com
Tel: 0714207777(Safaricom)
0100003003(Airtel)
When Replying please quote:

PO BOX 491
KILIFI, KENYA

Ref No: CG/KLF/CPSB/ ATT&INT/44/VOL.34/115

Date: 16th October 2023

Mount Kenya University
Directorate of Post Graduates Studies
Thika.

Dear Sir/Madam

RE: AUTHORIZATION TO COLLECT DATA - JANE MWENDE MUTULA
REG. NO.MPSM/2021/85697

The above matter refers.

The purpose of this letter is to authorize the above named student, who is pursuing Master of Science in Procurement and Supplies Management in the Department of Management in the School of Business and Economics to collect data for the period October 2023 to December 2023, for the research project titled 'Analysis of Elements Influencing Electronic Procurement Performance in Kilifi County Government'.

Thank you.

Yours faithfully,

Gideon C. Mumba
Deputy Director Administration
Kilifi County Public Service Board

APPENDIX VII: RESEARCH PERMIT BY NACOSTI

 <p>REPUBLIC OF KENYA</p>	 <p>NATIONAL SCIENCE, TECHNOLOGY & INNOVATION</p>
Ref 8055	Date of 2/January/20
RESEARCH LICENSE	
	
This is to Certify that Miss. Jane Mwendu Mutula of Mount Kenya University, has been provisioned of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kilifi on the INFLUENCING ELECTRONIC PROCUREMENT PERFORMANCE IN KILIFI period ending :	
License NACOSTI/P/2	
8055	
Applicant	Director
NATIONAL SCIENCE TECHNOLOGY & INNOVATION	
Verification	
	
Scan the QR Code using QR See overleaf for conditions	

APPENDIX IX: PLAGIARISM REPORT

AN ANALYSIS OF ELEMENTS INFLUENCING ELECTRONIC PROCUREMENT PERFORMANCE IN KILIFI COUNTY GOVERNMENT, KENYA

ORIGINALITY REPORT

7 %	%	7 %	0 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

- 1** Ismail Abdi Changalima, Anjela Ewald Mdee. "Procurement skills and procurement performance in public organizations: The mediating role of procurement planning", Cogent Business & Management, 2022
Publication **1** %
- 2** Desiree Joosten-ten Brinke, Dominique M.A. Sluijsmans, Wim M.G. Jochems. "Assessors' approaches to portfolio assessment in Assessment of Prior Learning procedures", Assessment & Evaluation in Higher Education, 2010
Publication **1** %
- 3** Eunice Waruguru. "Factors Affecting Effectiveness of E-Procurement in Business Organizations, a Survey of Safaricom Dealers in Nakuru CBD-Kenya", International Journal of Economics, Finance and Management Sciences, 2015
Publication **<1** %