# ANALYSIS OF STRATEGIC PROCUREMENT PRACTICES, COLLABORATIVE CAPABILITY AND OPERATIONAL PERFORMANCE OF INDEPENDENT OFFICES AND COMMISSIONS, KENYA

**BY**

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**A THESIS SUBMITTED IN FULLFILLMENT OF REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN SUPPLY CHAIN MANAGEMENT**

**DEPARTMENT OF MANAGEMENT SCIENCE**

**SCHOOL OF BUSINESS AND ECONOMICS**

**MASENO UNIVERSITY**

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## DECLARATION

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I declare that this is my original work and has not been presented in any other institution for examination.

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## ABSTRACT

Independent offices and commissions were established in the constitution of Kenya, 2010 with the objective of protecting the sovereignty of people and democratic values. The National Treasury report 2018, show that of the 16 independent offices and commissions, only one had implemented strategic procurement practices enshrined in Access to Government Procurement Opportunities (AGPO) 30% directive. Controller of Budgets report 2022, further shows that 78% of procurement employees did not meet their performance targets in terms of timeliness, cost effectiveness, quality and customer service improvements in 2020, increasing from 62% in 2017. Reports indicated that only 56% of strategic practices are often fit to achieve desired result. While previous works have sought to address these pitfalls, reviewed studies on sourcing strategies were in diverse contexts & built on different theories. Previous considered works on contract management did not consider its important measures such as planning, monitoring & documentation. Majority of reviewed works on negotiation were reviews in diverse contexts. Theoretical submissions on collaborative capability built on different methodologies and designs. Empirical discussions on collaborative capability espoused it used as moderator in differing relationships and environments. A portion of reviewed literature on strategic procurement practices and performance showed weak relationship, suggesting need for moderation effects. The aim of study was to analyze strategic procurement practices, collaborative capability and performance of independent offices and commissions, Kenya. Specifically, the study sought to determine effects of sourcing, contract management, negotiation and collaborative capability practices on performance and further investigate moderating role of collaborative capability on strategic procurement practices and performance relationship. The study was mainly based on Relational View Theory. A correlational survey design and positivism approach on a target population of 216 respondents made up of heads of procurement, procurement officers and departmental heads from which a sample of 140 was selected using Krejcie & Morgan sample tables. Primary data was collected using a questionnaire. Supply Chain Management (SCM) expert opinion and factor correlations ($r > .65$) confirmed construct & content validities while reliability was affirmed through Cronbach alpha with values ($0.7<\alpha<0.89$). The data were analyzed by descriptive and inferential statistical techniques including correlation and regressions. The results reveal that adopting strategic procurement practices has a significant positive effect (Sourcing practices: $\beta=0.426$, $R^2=0.181$, $t=5.438$, $p<0.05$; Contract management practices: $\beta=0.557$, $R^2=0.311$, $t=7.754$, $p<0.05$; Negotiation practices: $\beta=0.721$, $R^2=0.520$, $t=12.16$, $p<0.05$) Collaborative Capability Practices: $\beta=0.745$, $R^2=0.555$, $t=12.99$, $P<0.05$, indicating that practical unit increase in adoption of Sourcing, Contract management , Negotiation and Collaborative capability practices results to 0.43, 0.58, 0.72 and 0.75 units increase respectively. Presence of interactive effect confirmed moderation ($\beta=0.429$, $R^2=0.136$, $t=9.688$, $p<0.05$) proving that incorporating collaborations in supply chains improves the effect of strategic procurement on performance by 0.439 units. The study recommends that stakeholders in supply chain firms need to continuously derive policies geared towards improvement in use of sourcing, contract management, negotiation and collaborative capability practices and further enhance collaborations among parties to achieve higher results. The study is profound as it proves that strategic procurement practices are indeed frugal firm practices that may derive more value in the presence of collaborations.

## ACKNOWLEDGEMENT

Firstly, I acknowledge God, for charitable strength and mercies all through this journey. My heartfelt appreciation goes to my supervisors Dr. Renson Wanyonyi and Dr. Beatrice Abongo for their interminable sustenance in the period of this thesis. The constant criticism, corrections and reading through uncountable drafts in mounting this work were precious inputs. Furthermore, their tremendous commitments and all time individual provision can never go undisclosed. My appreciation further extends to Dr. Esau Mengich, the Head of Department, Management science, Maseno University. Prof. Fredrick Aila, Dean of School of Business and Economics, Maseno University and Prof. Patrick Onyango, Dean School of Graduate Studies, Maseno University. Their supervision, mentorship and unrelenting morale went a long way in sculpting this work.

In an exceptional way, I recognize and give cheers to my Aunty and Uncle Mr. Charles Maduma and Dr. Janet Chumba, my sister Maurine Osewe (CPSP-K). To my best friends Mr. James Muhoma, Miss. Scolastica Muyila, Mr. David Muganda (CPA), Miss. Yuanitta Irene and Miss. Cynthia Liech.

## DEDICATION

I dedicate this doctoral thesis to my parents, the late Eng. Jorrim Osodo Osewe, Mama Esther Awuor Osodo and Susan Aluoch. My siblings: Kennedy Osewe, Mercy Osewe, the late Charles Osewe Osodo, Quincy Osewe, Willam Osewe and Martin Osewe, to my nephews and nieces, to the family of Mr and Mrs Ayuo. To the Odenyo Family and lastly, to Mr. James Kungu (Senior CPA).

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## LIST OF ABBREVIATIONS

| | | |
|---|---|---|
| **AGPO** | : | Access to Government Procurement Opportunities |
| **IPOA** | : | Independent Policing and Oversight Authority. |
| **CLM** | : | Contract Life Cycle Management |
| **CNT** | : | Collaborative Network Theory |
| **CRA** | : | Commission of Revenue Authority |
| **EACC** | : | Ethics and Anti-Corruption Commission |
| **FAR** | : | Federal Acquisition Regulation |
| **GIFIMS** | : | Government Integrated Financial Management Information System |
| **IEBC** | : | Independent Electro Boundaries Commission |
| **JSC** | : | Judicial Service Commission |
| **KLRC** | : | Kenya Law Reform Commission |
| **KNHRC** | : | Kenya National Human Rights Commission |
| **NGEC** | : | National Gender and Equality Commission |
| **NLC** | : | National Land Commission |
| **NPSC** | : | National Police Service Commission |
| **PPPFA** | : | Preferential Procurement Policy Framework Act |
| **PPRA** | : | Public Procurement Regulation Authority |
| **PSC** | : | Public Service Commission |
| **PSCK** | : | Parliamentary Service Commission of Kenya |
| **SET** | : | Social Exchange Theory |
| **SIPs** | : | Strategic Integrated Projects |
| **SPSS** | : | Statistical Package for Social Sciences |
| **TSC** | : | Teachers Service Commission |
| **UN** | : | United Nations |

## OPERATIONAL DEFINITION OF TERMS

**Collaborative Capability** is when an organization's capacity to effectively engage and cooperate with external stakeholders, particularly suppliers, partners, and other relevant entities. In this study, it is operationalized to consist of communication, interdepartmental relationships and feedback.

**Contract management** involves planning, monitoring and evaluation, and maintaining comprehensive documentation of contractual agreements. In this study, contract management is operationalized as contract planning, ongoing monitoring and evaluation, documentation maintenance, and adherence to contractual terms.

**Negotiation** entails discussions and agreements on terms of service, pricing, and negotiation styles and approaches. In this study, negotiation is operationalized as negotiating terms of service, pricing structures, and employing various negotiation techniques and approaches while maintaining positive supplier relationships.

**Performance-** Performance, in general, refers to the attainment of organizational goals and desired outcomes. In this study, performance was operationalized as timeliness in service delivery, scope of service delivery and quality improvements in service delivery

**Sourcing** is the identification and selection of suppliers, streamlining base rationalization, and implementing development programs. In this study, sourcing is operationalized as supplier selection, base rationalization, development programs, and supplier relationship management.

**Strategic Procurement Practices** Strategic procurement practices essentially entail an approach to acquiring goods and services that goes beyond traditional, transactional processes emphasizing long-term value creation and collaboration with suppliers.

**Strategy** These are actions of tactics of action of how one arrives at a selected position. It is the way in which an organization, party or individual follows in order to achieve some set target.

**Independent offices and Commissions** Institutions promulgated in the 2010 constitution of Kenya with the aim of promoting constitutionalism, protect human rights and ensure transparency and accountability in governance, use of public resources devoid of political interference.

**Kenya** Refers to the Republic of Kenya as established by the constitution of Kenya, 2010. The constitution creates and empowers independent offices and commissions under chapter 15 to protect sovereignty, secure observance of democratic values and promote constitutionalism.

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# CHAPTER ONE

# INTRODUCTION

## 1.1 Background to the Study

In the vigorous realm of global commerce, procurement stands as a pivotal function to the success of organizations across various industries. As industries struggle to sustain a competitive power, the importance of effective procurement strategies being more pronounced than ever. Purchasing and procurement are referred in many discussions as buying activities of companies. Procurement is the application of transactional function of buying goods, works and services at the lowest prices (Peszynski, *et al*., 2017). To enhance organizational performance, companies must carefully select procurement practices that are in unison with their goals. This selection process involves not only assessing cost but also evaluating quality, sustainability and supplier reliability; thereby making sure that the firm derives maximum value of its expenditures. The primary aim for procurement practice is to secure value for money, meaning that organizations must commit to their resources in a way that maximizes their returns and minimizes waste (Muturi, 2024).

According to Kivisto & Virolainen (2019), spending in many developed economies in the public is about 40% to 50% of their total expenditure. The way in which revenue is spent is important on both national and local economies as it influences employment aspects, social cohesion, environmental and technological aspects. Procurement of goods, works and services is a powerful tool that affects supply markets, innovativeness and entrepreneurial aspects. Wanyonyi (2023) pens that the Kenya structure of public procurement has grown over years and is presently controlled by the Public Procurement and disposal Act (PPDA), 2022 and accompanying regulations. In the beginning, treasury circulars guided public procurement in Kenya from around 1969. The Public procurement processes and practices are often complex but rather significant to operations of supply chain firms, more specifically the public organizations.

According to Oliech & Mwangangi (2019), a strategy is a design of action of how to arrive at your selected position. It is how an organization, party or individual follows in order to achieve some set target. Procurement and supply chain management is a wide spectrum, buoyed by other functions such as purchasing, warehousing & distribution, logistics, contract administration and sales and marketing. Supply chain management emanated in 1980s in the works of Oliver and

Webber and defines a coordinated system of parties, functions, resources, information from producers to the final users with a view to ensure products are delivered to final consumers. Simply put, Benchekroun, Benmamoun, & Hachimi (2022) states that supply chain management refers to coordination of flow of materials, resources and information from the original productive facilities to the final consumers. Procurement is the process by which purchasing organizations identify need for materials and acquire such materials through follow up and expedition up to delivery.

Bryson & George (2020) reasons that one of the strategic areas gaining prominence in public sector institutions is strategic procurement. Recognizing the pivotal function procurement plays in achieving organizational objectives, public offices and commissions are increasingly adopting strategic procurement practices. Strategic procurement extends beyond traditional approaches and involves a comprehensive and forward-looking perspective on sourcing, acquiring, and managing resources (Kristensen, Mosgaard, & Remmen, 2021). This strategic shift aims to make the procurement processes be in line with overarching organizational goals, enhance efficiency, and drive innovation. Implementation of strategic procurement practices in firm operations closely tied to organizational performance, as effective procurement stratagems can lead to cost savings, improved service delivery, and overall enhanced effectiveness in the public sector (Guarnieri & Gomes, 2019). It becomes important, to therefore, understand whether strategic procurement practices can really have a bearing on performance more so for public offices and commissions seeking to traverse the complexities of contemporary management successfully.

In the context of public organizations, strategic procurement practices take on unique characteristics and challenges that distinguish them from their private-sector counterparts. Scholars have recognized the distinctive nature of public procurement and the need for tailored strategic approaches to address the complexities inherent in government operations (Benchekroun *et al*., 2022). Strategic procurement practices essentially entail an approach to acquiring goods and services that goes beyond traditional, transactional processes (Allen, 2021). One of the key differentiators is the presence of regulatory frameworks and compliance requirements that public organizations must navigate. Public procurement is often subject to stringent legal and ethical considerations, necessitating a tactical framework that not only achieves efficiency in operations, cost-effectiveness but also ensures adherence to legal frameworks. Guarnieri & Gomes (2019) highlight the significance of aligning strategic procurement practices with legal requirements to

mitigate risks and enhance accountability. In the United States, the emphasis on strategic procurement gained momentum with various government initiatives, such as Federal Acquisition Regulation (FAR) as well as emphasis on performance-based contracting (Benchekroun *et al*.,2022; Allen, 2021; Kristensen *et al*., 2021).

Most recently, strategic procurement has become significant within the public sector. According to Henry (2021), the concept confined traditionally to the realm of private enterprises; however, public entities are now adopting the use of strategic practices to improve their results. The evolving landscape of governance, both globally and domestically, has compelled entities to embrace strategic approaches as a means to enhance efficiency, effectiveness, and overall performance (Bryson & George, 2020). Evidenced in the trend within the field of public administration whereby scholars have introduced the concept of the "strategic state," marking a departure from traditional bureaucratic approaches. Strategy refers to long-term goals and objectives of an organization and the acceptance of actions and resources necessary for fulfilling out these goals (Kuhl, 2024). Unlike the conventional perception of the state as a rigid and bureaucratic entity, the strategic state is dynamic and forward thinking, incorporating strategic principles to proactively address societal challenges, optimize resource allocation, and foster a more adaptive and resilient public sector (Bryson & George, 2020).

Within the African region, the adoption and emphasis on strategic purchasing in the public sector firms have been growing in response to the continent's evolving economic landscape, governance challenges and the need for an effective and transparent civil service delivery (Fourie & Malan, 2020). Several nations have made significant strides in incorporating strategic elements into their public procurement frameworks. South Africa stands out as a leader in advancing strategic purchasing in the continent. The country has adopted mechanisms meant to enhance transparency, competition, and efficiency in public procurement. Initiatives like Preferential Procurement Policy Framework Act (PPPFA), the introduction of the Strategic Integrated Projects (SIPs) have contributed to the strategic orientation of procurement processes (Ndlovu, 2021). Nigeria has also made strides in adopting strategic procurement practices. The country has introduced reforms to improve the procurement procedures including the Bureau of Public Procurement Act and the use of the Integrated Financial Management Information System (IFMIS) for procurement activities to enhance procurement performance of public firms (Shehu *et al*., 2020).

Kenya as a county has also been actively working on integrating strategic procurement into its public sector practices. The country has undergone procurement reforms, including the establishment of a regulatory agency, PPRA- Public Procurement Regulatory Authority, the Public Procurement and Asset Disposal Act (2015) and implementation of e-procurement systems. These efforts aim to enhance procurement efficiency, reduce corruption risks, and align procurement activities within public firms with national development goals (Ong'era & Musili, 2019). Several studies in Kenya, such as Owino & Juma (2023), Chepng'etich (2022) have recognized the value of negotiation, conceptualizing it to encompass aspects such as Terms of service, Pricing and Styles & approaches as key to enhancing performance.

As seen in Chenini, Iqbal, Qurrahtulain, Husain Mahmood & Aldehayyat (2021), strategic procurement encompasses practices that emphasize on creative value for an organization by carefully utilizing firm resources when acquiring goods, works and service. This acquisition in essence must align with the overall firm strategic direction. According to the writers, such practices include, planning and monitoring, prior evaluation, prudent management of supplier relationships during sourcing, managing contracts, negotiation for better terms and price. However, Frolov, Iliashenko & Ershova (2021) reasons strategic purchasing practices often and majorly entails negotiation with service providers in a way that achieves value for and of money, managing contracts of business with service providers, supplier selection and sourcing the best available service providers in a timely manner. From this analogy, the current study paper conceptualizes strategic procurement practices in terms of negotiation, contract management and sourcing practices that will form the specific constructs of the study.

According to Weigel & Ruecker (2017), sourcing can be a strategic procurement practice and is conceptualized to consist of aspects such as supplier selection, base rationalization and supplier development. Claussen *et al*., (2020) also delves into sourcing in the US army, linked with several benefits, such as contributing to increased efficiency, accountability, and overall effectiveness of government operations; however, its success depends on effective implementation, monitoring, and a commitment to continuous performance improvement in the public sector firms. Moreover, the U.S. federal government has continually sought ways to harness the effectiveness of procurement procedures, leading to the integration of strategic elements. In the United Kingdom, the introduction of market-oriented reforms, such as the Private Finance Initiative (PFI) in the

1990s, marked a significant shift toward strategic thinking in public procurement (Granoulhac, 2021). The PFI encouraged partnership with the private sector for the delivery of public services, prompting a reevaluation of procurement strategies and practices (Davidson, 2021).

Reviewed studies on sourcing practices delved into role of sourcing practices on firm performance, exploring diverse sectors and countries. For instance, (Nganu and Mwangangi (2018) established that strategic sourcing positively affected the performance of state corporations in Kenya. Similarly, Kamau and Barasa (2024) reported that supplier development, e-sourcing, financial evaluation, and outsourcing significantly enhanced procurement performance in Lamu County Government. In the private sector. Wagner, Grosse-Ruyken, and Erhun (2018) spanned across European and US regions. Tesfaye's (2019) study situated in Ethiopia's MOHA Soft Drinks. Meanwhile, (Soita and Osoro, 2023; Kinuthia and Amuhaya, 2023) were in Kenya's energy sector and cooperative creameries respectively. This works ignored service firms of independent offices and commissions. Likewise, the reviewed studies were founded on different theories (Kinuthia and Amuhaya, 2023: systems, network, and agency theory; Wagner *et al*., 2018: Information Processing Theory; Soita and Osoro, 2023: Transaction Cost Theory. Thus, evidence on effect of sourcing practices on performance of independent offices and commissions in a Kenyan context, adopting social exchange, collaborative network theories is nonexistent. The current paper seeks to build upon this foundation, incorporating collaborative capability as a crucial moderator in the sourcing-performance nexus to fill this gap.

In Cruz & Marques (2022), contract management is a strategic procurement practice that explains that all parties involved in a contract fulfill their objectives and obligations as outlined in the agreement. It also encompasses the execution of roles and responsibilities while fostering a collaborative working relationship among all stakeholders involved. Management tasked with the responsibility of anticipating potential unforeseen events that may require contract renegotiation and making necessary adjustments as needed. Studies such as Brunjes *et.al* (2023) have conceptualized contract management to consist of a cyclical process that entails planning, monitoring & evaluation and documentation and associated it with superior performance in public procurement contexts.

The empirical literature on contract management practices show that studies operationalized the variable diversely (Mamavi, Nagati, Paché, & Wehrle, 2018: contract verification, negotiability;

Rashid Issa, 2019: cost-benefit analysis, solution characteristics, project timelines) thus not focusing on important measures such as planning, monitoring & evaluation and documentation. Furthermore, other studies adopted moderating aspects on contract management-performance relationship (Muinde, 2022: moderating role of legal compliance) therefore did not test its direct relationship with performance. In a similar way, literature on contract management was carried out in other country's economies (Mamavi *et al*., 2018: France; Rashid Issa, 2019: Indonesia), ignoring a focus on a developing economy like Kenya. From these insights, the present study will hope to fulfill these gaps by investigating effect of contract management on performance in Kenya's constitutional and independent offices and commissions.

Initially, public institutions had adversarial relationships with their suppliers; however, they are beginning to seek creating more collaborative relationships through negotiations. In Africa, for instance, scholars often highlight the importance of public sector performance in fostering economic development, reducing poverty, and promoting good governance. In a study by Thusi, Matyana & Jili, (2023) that was done in South Africa, it was reported that performance can be measured by analyzing the timeliness of service delivery and this was facilitated through negotiation about the key terms of service. Delays in service delivery have cascading effects, particularly in critical sectors such as healthcare and education. In Burkina Faso, delivering high-quality services is also essential for evaluating public sector and organizations should engage in negotiations with suppliers to determine quality and pricing tradeoffs (Sylla *et al*., 2019).

The studies on negotiation and its impact on firm's performance show that researchers employed different designs and methodologies. For instance, (Chepng'etich (2020): cross sectional- survey design,), ignoring the use of correlational survey design. Besides, other studies were carried out in different contexts (Nwankiti, 2023: Nigeria's oil & gas sector; Thrulogachantar and Zailani, 2011: Malaysian manufacturing firms), ignoring independent offices & commissions. Additionally, other studies employed secondary data, (Nwankiti, 2023) overlooking the realism of primary data. Some studies albeit, measured negotiation practices differently (Mwagike and Changalima, 2022: negotiation skills, attributes of procurement professionals), this ignoring important measures such as terms of service, pricing & approaches). When all these gaps considered in a Kenyan context, empirical literature is devoid. The current paper will seek to

address these gaps by studying effect of negotiation practices on performance of independent offices & commissions, Kenya.

Concept of collaborative capability examined at various analytical levels in contemporary literature concerning both inter- and intra-organizational relationships including the listings in Kithure (2022) such as alliances, cross-functional teams, intra-firm coordination, and organizational innovation. Collaboration involves individuals or organizations working together to accomplish tasks and reach shared objectives. It is a recursive process where multiple parties engage deeply, reflecting more than just a convergence of interests, as is typical in cooperative efforts; it entails a collective commitment to achieving a unified goal (Wagner, 2021). Notably, organizations that collaborate can leverage greater resources, enhance their visibility, and secure more rewards in competitive environments characterized by limited resources (Smith & Jones, 2022).

Ping, Chinn, Yin and Muthuveloo (2018) in Malaysia, examined the role of information technology capacity, collaboration capability and business intelligence on performance of public sector firms. The writers used a cross sectional design on a target population of 818 public companies. Primary data was collected using structured questionnaire. Findings showed mixed results; on one hand both business intelligence and collaborative capability helps raise overall results; while on the other hand, there exists a negative significant role of information technology capability on outcome results of public companies in Malaysia. In this, Ping *et al*. (2018) notes that without prudent flow of information and collaborations, public companies may not perform optimally and achieve their targets.

The reviewed literature discloses that some studies employed collaborative capability as a moderator in different relationships (Power, 2014; Kithure, 2022; Choi and Hwang, 2015; Samad *et al*., 2021) disregarding strategic procurement practices and performance relationship in independent offices and commissions. Likewise, previous works have not used collaborative capability as a moderator but rather as a predictor (Fawcett *et al*., 2019). In the same vein, some empirical works operationalized collaborative capability diversely (Power, 2014), neglecting important measures such as interdepartmental associations, communication and feedback. Previous studies on strategic procurement practices and performance association show weak relationship (Angila, 2017; Rashid Issa, 2019), denoting that moderation effects may exist. None

of the reviewed works studied moderating role of collaborative capability in strategic procurement and operational performance, especially in independent offices and commissions, therefore this firms have not performed to the expected levels, as staff in procurement have not met their performance targets (Controller of Budget, 2022). The current study thus, sought to achieve this objective.

Operational performance is a highly subjective term that is termed differently across organizations and regions. In public administration, (Cabral *et al*., 2019) show that the pursuit of performance involves balancing diverse and often conflicting objectives. As per the nature of public organizations, tasked with serving a broad array of stakeholders, each with distinct expectations and demands. Moreover, public institutions operate in an environment characterized by a constant evolution of social, economic, and political factors, further complicating the quest for sustained performance (Gieske *et al*., 2020).

From a global perspective, diverse governance models, cultural contexts, and historical legacies shape the meaning of public sector performance. One crucial dimension of performance within public institutions is service effectiveness, measuring the extent to which public institutions meet their mandated objectives and provide valuable services to citizens. This includes assessing the quality, accessibility, and responsiveness of services offered (Steiss, 2019). Lapuente & Van de Walle (2020) explain that governments entrusted with taxpayer money, necessitating efficient financial management and the avoidance of wastage or misuse. In light of this role, another vital dimension to measure performance is fiscal responsibility, emphasizing the prudent and accountable use of public resources. Other measures include efficiency and productivity, which focus on optimizing the use of resources to achieve desired outcomes (Steiss, 2019). This involves streamlining processes, eliminating redundancies, and enhancing the overall effectiveness of public programs. Additionally, transparency and accountability serve as critical dimensions of achievement of results in public organizations.

In relation to procurement practices Mio, Costantini & Panfilo (2022) established a framework for measuring performance. It emphasized the alignment between public procurement practices and service delivery and the scope of services delivered. Another approach adopted by a study that was conducted in MENA (Middle East and North African countries) by the Organization of

Economic Development (OED, 2016). The study highlighted on key dimensions of measuring performance of public entities, which include timeliness and quality of materials delivered.

Organizations in the public sectors can improve their results by having a continual focus on the strategies and capacities they need to successfully perform their mandates. Algarni (2021) stated that they can achieve this by understanding exactly what capabilities are more important, as well as determining which strategies and capabilities are pivotal and can be considered as important to the effective carrying out of activities which are essential to arousing competitive scales in performance. Further, it encompasses understanding these capabilities in details, principally strategic capabilities in a precise, detailed mode to make it clear what their purchasing firms hope to bring about. As purchasing firms endeavor to obtain competitive scales, they can coordinate their conceptualized strategic capacities to deal with changing environments (Mio *et al*., 2022).

Nonetheless, several challenges still emerge in Kenya's public organizations with ensuing performance since it often involves diverse goals including ensuring best services for the common citizenry, staff satisfaction, productivity and prudent management of public resources (Ngigi & Busolo, 2019). Firms in the public sector can leverage and improve their performance by putting a wider focus on procurement capabilities. While strategic practices are important in shouldering public sector firms' performance, Guarnieri & Gomes (2019) cautions that political goodwill and government support is often a precursor for maintaining capabilities to fruitfulness. Effective procurements and disposals in independent commissions and offices ensures not only timely acquisition of supplies for effective service delivery but also voids conflicts in organizations. Acquisition of products in the right time, price, quantity, quality and place is frugal in ensuring that independent commissions and offices achieve their mandates.

The study by Njamwea (2022) show that existence of independent offices and commissions can be traced back to global ideas and pressure which demanded that some functions and works in a government set up are central to increasing democracy, transparency and accountability in the working of a government. This made it probable with the formation of independent offices and commissions free from the precincts and political control of a formal government. In the UN General Assembly sitting of 1993 in Paris, France, independent offices and commissions were set up and mandated to deal with human rights protection, setting the bare minimal measures that the national human rights body should hold for such an entity to be considered independent (Njamwea,

2022). As such, Commissions and Independent offices promulgated outside precincts and ambits of government's bureaucrats and politicians due to their excess influence, political patronage, corruption and partiality when handling matters that deal with humanity and their rights.

In the Government of Kenya, (The Constitution of Kenya, 2010) the new constitution enlists 17 offices and commissions that cover aspects of human issues. These Commissions and offices are 1. Judicial Service Commission (JSC). 2. Kenya National Commission on Human Rights (KNCHR). 3. National Land Commission (NLC). 4. Independent Electoral and Boundaries Commission (IEBC) 5. Teachers Service Commission (TSC) 6. National Gender and Equality Commission (NGEC) 7. Ethics and Anti-Corruption Commission (EACC) 8. Parliamentary Service Commission 9. Commission on Revenue Allocation (CRA) 10. Public Service Commission (PSC) 11. National Police Service Commission (NPSC) 12. Commission on Administrative Justice/ Ombudsman (CAJ). 13. Kenya Law Reform Commission (KLRC) 14. Independent Policing and Oversight Authority (IPOA). 15. Office of Auditor-General 16. Controller of Budgets. 17. Commission for University Education (CUE). Their main function is ensuring protection of the sovereignty of the people, ensure that the national government observes the democratic space, values and principles of every Kenyan and promote constitutionalism by abiding to its values and principles *(HR Records Resource Centers, Independent Commissions and Offices, 2024).*

Independent offices and commissions have faced myriad challenges among them subpar performance and procurement malpractices. The National Treasury report (2018) show that out of the 16 independent offices and commissions operationalized, only one- the Kenya National Human Rights Commission had implemented majority of strategic purchasing practices as per the AGPO 30% directives. The controller of Budgets report, 2022 show that 78% of procurement employees failed to achieve their performance targets in terms of timeliness, service delivery, cost effectiveness, quality and customer improvement in 2020, rising from 62% in 2017. In addition, previous reports further show that only 56% of strategic practices are often fit to achieve desired results in these offices and commissions. The procurement functions within the independent offices and commissions remain flawed, implying dent in service delivery to citizens and increased lead-time in the firms. To this end, Adda (2024) acknowledges that strategic procurement aspects are important precursor to alleviating results in business firms

In addition, National Gender and Equality Commission (NGEC) ended the contract service of some of its employees, among them its commission secretary and Chief Executive Officer on allegation of procurement malpractices (*Rose v NGEC, 2018*). The Daily Nations Newspaper report, 28th June 2018 showed, IEBC quoted from the Auditor General Report, 2018 exhibited that the commission may have lost a colossal sum of Ksh. 4.6 billion in the procurement of materials for the 2017 general election from its 10 tender contracts, this representing 74% value of all the annual procurement opportunities for that period. The report further disclosed that this was largely due to procurements at highly exaggerated costs, lack effective procurement plans in place to guide procurement and lack of market surveys to establish market prices. This led to loss of value for money, sunken quality of final products procured (Daily Nations Newspaper report, 28th June 2018)

Independent Offices and Commissions in Kenya are beginning to realize how new perspectives in public administration are shaping procurement practices and subsequent performance. Mugo & Deya (2023) report a link between strategic capabilities of independent offices and commissions and performance. Scholars have indicated that even with effective strategy formulation and implementation, collaborative capability is crucial in affecting productivity and performance levels (Okere, & Esau, 2022). This collaboration can be either interdepartmental or intradepartmental; however, regardless of the parties involved, it is facilitated by communication and feedback mechanisms (Wang & Hu, 2020). There is a need to study whether strategic procurement practices influence the performance of constitution of commissions and offices, moderated by collaborative capability.

### 1.2 Statement of Problem

Globally, commissions and independent offices established for transparency, accountability and good governance in a democracy. Their autonomy from direct government control positions them as key entities for upholding democratic principles. The Constitution of Kenya, 2010 established independent offices and commissions in a bid to protect the sovereignty of citizens and ensure that government organs observe democracy in discharging their mandates. In spite of the promise that the offices and commissions held, empirical reports point out that they have performed sub optimally due to absence of strategic factors such as procurement practices. National Treasury report (2018) show that out of the 16 independent offices and commissions operationalized, only

one- the Kenya National Human Rights Commission had implemented majority of strategic purchasing practices as per the AGPO 30% directives. The controller of Budgets report, 2022 show that 78% of procurement employees failed to achieve their performance targets in terms of timeliness, cost reduction, cost effectiveness, quality practices and customer service in 2020, rising from 62% in 2017. In addition, previous reports further show that only 56% of strategic practices are often fit to achieve desired results in these offices and commissions. The procurement functions within the independent offices and commissions remain flawed, implying dent in service delivery to citizens and increased lead-time in the firms. While previous works have tried to address this short hauls, works on sourcing strategies were in diverse contexts & build on different theories. Studies on contract management did not consider its important measures such as planning, monitoring & documentation. Majority of reviewed works on negotiation were reviews in diverse contexts. Theoretical submissions on collaborative capability built on different methodologies and designs. Empirical works on strategic procurement practices and performance showed weak relationship, suggesting the need of a moderation effect. The purpose of study was to analyze strategic procurement practices, collaborative capability and performance of independent offices and commission in Kenya.

### 1.3 Objectives of the Study

The broad objective of the study was to analyze strategic procurement practices, collaborative capability and operational performance in independent offices and commissions in Kenya. The specific objectives below were to guide the study;

i. Determine effect of sourcing practices on operational performance of independent offices and commissions, Kenya.
ii. Establish effect of contract management practices on operational performance of independent offices and commissions, Kenya.
iii. Establish effect of negotiation practices on operational performance of independent offices and commissions, Kenya.
iv. Ascertain the effect of collaborative capability practices on operational performance of independent offices and commissions, Kenya.

v. Determine moderating effect of collaborative capability on the relationship between strategic procurement practices and operational performance of independent offices and commissions, Kenya.

### 1.4 Hypotheses of the study

**$H_{01}$**: Sourcing practices has no significant effect on the operational performance of independent offices and commissions in Kenya.

**$H_{02}$**: Contract management practices has no significant effect on the operational performance of independent offices and commissions in Kenya.

**$H_{03}$**: Negotiation practices has no significant effect on the operational performance of independent offices and commissions in Kenya.

**$H_{04}$**: Collaborative capability has no significant effect on the operational performance of independent offices and commissions in Kenya.

**$H_{05}$**: Collaborative capability does not significantly moderate strategic procurement practices and operational performance of independent offices and commissions in Kenya.

### 1.5 Scope of the Study

The study paper aimed at analyzing strategic procurement practices, collaborative capability and operational performance of independent offices and commissions, Kenya. The procurement practices under investigation include sourcing, contract management and negotiation. These practices were analyzed to understand their separate and collective bearing on performance of the institutions. While many other strategic procurement practices exist, the study however focused on sourcing, contract management and negotiation given that they are mostly employed and practiced in typical supply chain firms in any procurement opportunity. The study specifically concentrated on the period spanning the last 10 years, aligning with the domestication of the PPAD act, 2015. The chosen timeframe, covering the past 10 years, was to enable a thorough analysis of recent trends and developments in strategic procurement practices collaborative capability and enough time to study effects on performance. Data was however collected cross sectionally. The scope included 16 independent offices and commissions within the public sector (see Appendix I). Moreover, the research delved into analyzing strategic procurement practices, collaborative capability and performance of independent offices and commissions. It aimed to ascertain whether

collaborative capacity enhances or diminishes role of strategic procurement practices on overall firm performance. The geographic focus of study paper is Kenya, and it involved an examination of various independent offices and commissions.

### 1.6 Justification of the Study

Study holds substantial significance across various dimensions, presenting numerous benefits to stakeholders involved in the public service, academia, and public. Findings of this research may be frugal in influencing policy decisions as concerned with strategic procurement practices and collaborative capability in independent offices and commissions. Policymakers in these offices and commissions, as well as other firms may use recommendations from the results of the study to refine and strengthen existing policies on sourcing, contract management, and negotiation practices to enhance overall performance. Stakeholders in public administration can use the study's outcomes for benchmarking purposes. Identifying and understanding best practices in strategic procurement will guide other organizations in adopting similar approaches, fostering values of continuity in service effectiveness across the public entities.

Stakeholders responsible for resource allocation and planning within independent offices and commissions benefited from informed decision-making. The study's insights into role of collaborative capability on procurement practices and operational performance assisted in strategic resource distribution. In addition, study may be important to the academic ladder on public sector management, strategic procurement, and collaborative capability. It established a foundational framework for future research, providing scholars and researchers with a comprehensive understanding of procurement dynamics in the public entities. Moreover, the study sheds light on how strategic procurement practices influence accountability and transparency within independent offices and commissions. This information is vital for promoting good governance, ethical conduct, and transparency in public sector operations. Ultimately, the research aim was to positively influence the public by ensuring efficient service delivery, reducing corruption risks, and promoting economic development. The improved procurement practices and enhanced operational performance directly contribute to the welfare of citizens.

## 1.7 Conceptual Framework

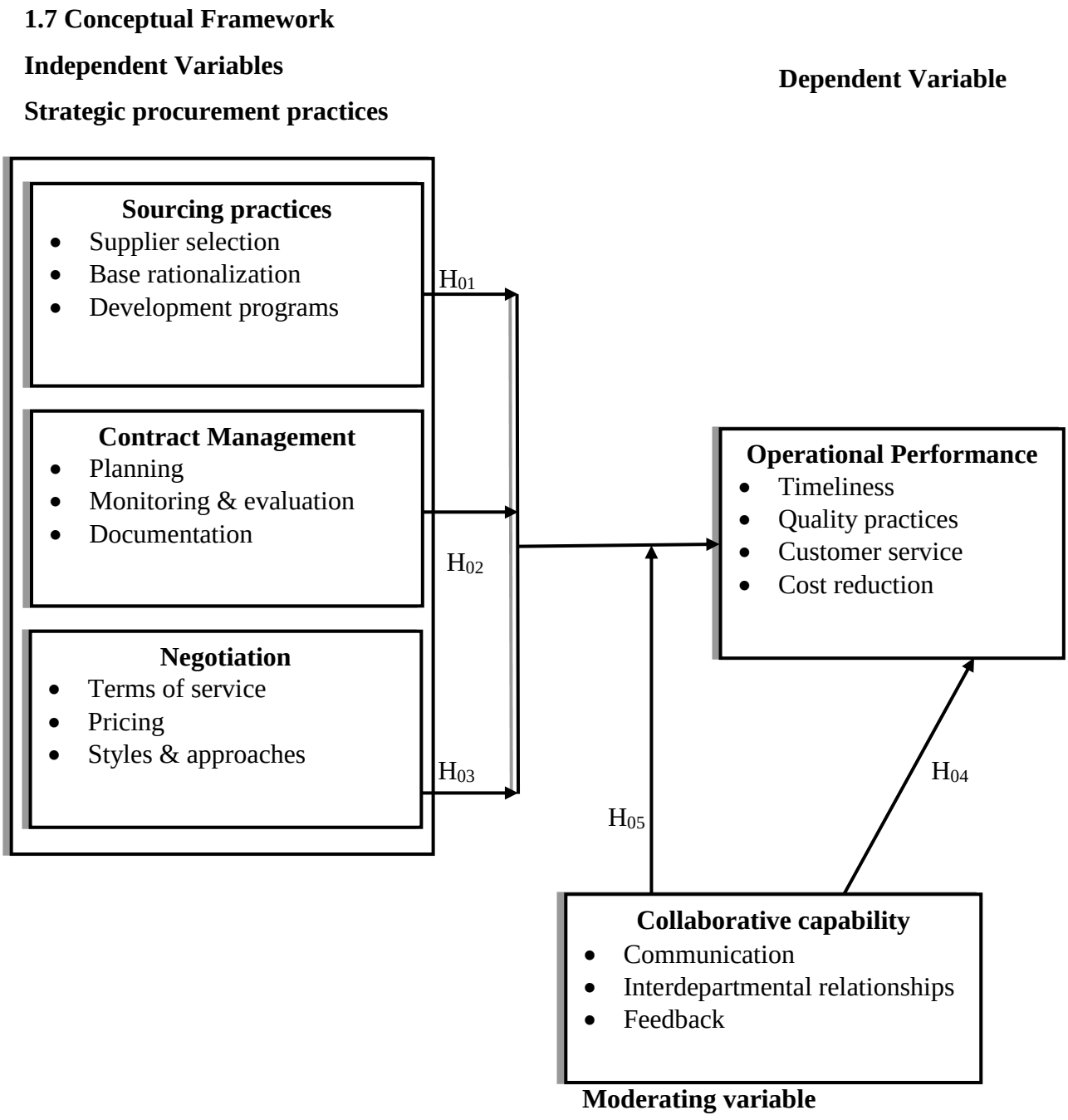



Figure 1. 1: Model Conceptual framework of the analysis of strategic procurement practices, collaborative capability and performance of independent offices and commissions in Kenya.

**Source: (Adapted from Dyer and Singh, 1990; formatted to befit the model. The Strategic Procurement practices & Collaborative Capability are relational aspects of perfoamnce )**

The figure 1.1 presents the conceptual framework that illustrates the relationships among variables (strategic procurement practices, collaborative capability and operational performance) of independent commissions and offices in Kenya. The independent variables in this study is strategic procurement practices, which include sourcing, contract management, negotiation and collaborative capability. Sourcing refers to the strategic procurement practice of acquiring goods or services from external sources. For this study, supplier selection, base rationalization and development programs denote it. Contract Management involves the administration of contracts and agreements. For this study, shown by planning, monitoring & evaluation and documentation. Negotiation encompasses the process of reaching agreements through discussions. It is indicated by terms of service, pricing, and styles & approaches. The dependent variable is firm performance and collaborative capability is the moderating variable. Operational performance indicates the overall effectiveness and achievement of objectives within independent offices and commissions. Timeliness, quality practices, cost effectiveness, customer and quality service measured it. Collaborative Capability represents the ability of organizations to collaborate effectively; it hoped that it might alter the relationship between strategic purchasing practices and organization performance. It is measured through assessing communication, interdepartmental relationships and feedback. In the framework, it is conceptualized that strategic procurement practices (sourcing, contract management, and negotiation) influence organizational performance and that collaborative capability moderates these relationships, signifying that the relevance of strategic purchasing practices subjected to variations that were based on the level of collaborative capability within the organization. As initially opined in Dyer and Singh (1990) Relational View Theory that inter firm associations are important antecedents of alleviating results, the conceptual model is adapted to imply that Independent offices and commissions as case firms, may achieve superior performance through collaborative relationships with external partners rather than relying solely on internal resources, even though resources (such as sourcing, contract management, negotiation practices) as conceptualized also enhance performance. From this, it can be said that strategic procurement practices such as supplier relationship management, strategic sourcing, contract management, supplier development, and e-procurement foster trust, information sharing, joint problem-solving, and coordinated decision-making between organizations and suppliers. Thus,

the framework model is drawn and adapted in the relational view theory by adopting strategic procurement practices, collaborative capability as important network relationships of achieving operational performance of independent and constitution offices and commissions in terms of timeliness, quality practices, cost effectiveness as well as quality and customer improvements.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

Chapter two of the thesis gives an extant review of literature on subject variables, providing a foundation for the study. It begins with a theoretical review where theories guiding study (Relation View Theory, Social Exchange Theory and Collaborative Network Theory) being discussed. It then provides an empirical literature review of published articles on sourcing and performance, contract management and performance, negotiation and performance, collaborative capability and performance and lastly, collaborative capability as a moderator on strategic procurement practices and performance relationship.

## 2.2 Theoretical Literature Review

### 2.2.1 Relation View Theory

Dyer and Singh established the Relational View of Strategic Management in the early 1990s. The main argument of the theory lies in shifting the focus from a traditional resource-based perspective to recognizing the importance of inter-organizational associations in achieving sustained competitive scales (Dyer, Singh & Hesterly, 2018). In this view, strategic advantage can be gained through the development and management of collaborative relationships with external entities. In Dyer and Singh (1990), it is principled that a business organization can achieve competitive scales and higher results, here in referred to as ‘relational rents’ by leveraging on its inter-organizational relationships, partnerships and networks and not just on just its internal strengths (resources).

Over the years, the Relational View has been refined and expanded upon. Scholars like Dyer, Singh, and others have delved into dimensions such as relational capability, relational governance, and relationship-specific assets. Some scholars have ventured into the exploration of relational capability, focusing on an organization's capacity to manage and leverage relationships effectively (Singh, 2017). This dimension delves into the skills, competencies, and adaptive mechanisms required navigating the complexities of inter-organizational collaborations. Additionally, the concept of relational governance has been scrutinized, shedding light on the mechanisms and structures that govern these relationships. Insights into the optimal structuring of agreements, coordination processes, and decision-making frameworks have emerged, providing practical guidance for organizations seeking to implement the Relational View (Liu, Sinkovics &

Sinkovics, 2020). The emphasis on relationship-specific assets further underscores the theory's sophistication, recognizing that certain assets derive their value primarily from their application within a specific relational context.

The theory has been applied in various industries to explain how firms can create value by establishing and nurturing relationships with external stakeholders. In practice, the theory was employed towards how organizations, regardless of their sector, can forge symbiotic relationships with suppliers, customers, and other stakeholders. By nurturing these relationships over the long term, firms can capitalize on the mutual benefits derived from trust, commitment, and shared investments (Liu *et al.*, 2020). The emphasis on the enduring nature of relationships aligns with the theory's foundational principles, advocating for sustained collaboration that goes beyond transactional interactions (Dyer, Singh & Hesterly, 2018). These applications have demonstrated the versatility and adaptability of the Relational View across different organizational contexts.

However, as with any theoretical framework, the Relational View has not been immune to criticism. Detractors argue that it may oversimplify the challenges inherent in inter-organizational relationships and might not adequately account for the dynamic and unpredictable nature of business environments (Barnett, 2019). Critics also contend that measuring and quantifying relational assets can be a complex task, raising questions about the theory's empirical robustness (Singh, 2017). These critiques, while acknowledging the theory's contributions, prompt ongoing discussions about its limitations and possible refinements.

Relational View Theory (RVT) was chosen as the main anchor theory and provides a suitable foundation for this study by proposing that organizations achieve superior performance through collaborative relationships with external partners rather than relying solely on internal resources. From this, it can be said that strategic procurement practices such as supplier relationship management, strategic sourcing, contract management, supplier development, and e-procurement foster trust, information sharing, joint problem-solving, and coordinated decision-making between organizations and suppliers. These interactions enhance collaborative capability, which refers to an organization's ability to effectively coordinate, communicate, and share knowledge with its stakeholders. Through such collaboration, organizations gain access to complementary resources, expertise, and innovations that improve operational efficiency. The theory further suggests that collaborative capability translates strategic procurement initiatives into improved operational

performance in terms of timeliness, quality, customer service, and cost efficiency. For Independent Offices and Commissions in Kenya, which depend on extensive stakeholder and supplier interactions to deliver public services, RVT explains how strategic procurement practices can strengthen collaborative capability and ultimately enhance operational performance. Therefore, the theory supports both the direct and indirect relationships among strategic procurement practices, collaborative capability, and operational performance examined in this study.

### 2.2.2 Social Exchange Theory

Social Exchange Theory (SET), a cornerstone in the realm of social psychology, originated with Homans in the 1950s and underwent further development by Blau (2002). The theory presents a perspective on social interactions suggesting that individuals engage in an ongoing process of exchange based on reciprocity, seeking mutual benefits while reducing associated cost of operations (Cropanzano *et al*., 2017). The evolution of SET has seen significant contributions from scholars such as John Thibaut and Harold Kelley, who expanded the theory by incorporating vital dimensions like trust, commitment, and perceived fairness into its fabric (Cropanzano & Mitchell, 2005). The emphasis on 'equity' in social exchanges underscores the critical importance of maintaining balanced interactions for fostering sustainable relationships. SET, therefore, delves into the psychological underpinnings of human behavior in negotiations, recognizing the profound impact of perceived fairness on shaping outcomes (Cook *et al*., 2013).

Nevertheless, SET has not been immune to criticism. Cropanzano *et al*., (2017) submitted that SET tends to oversimplify the multifaceted nature of human relationships by reducing them to mere economic relations. They argue that human interactions also affect other aspects of life such as social, environmental and legal spheres. Additionally, scholars have raised valid concerns about the cultural and contextual variations that affect social exchanges, challenging the presumed universality of SET's principles. For instance, Wai Chow Lee, Mohamad & Ramayah (2010) demonstrate that it has differing applicability in developing versus developed nations.

Despite these criticisms, SET was used in this study as a potent analytical tool for comprehending negotiation dynamics in the demesne of strategic purchasing practices. In the negotiation processes involving independent offices and commissions in Kenya, SET provided valuable insights into how reciprocal interactions, the meticulous building of trust, and considerations of fairness intricately affect the success of procurement negotiations. By acknowledging the inherently social

nature of exchanges, SET significantly contributed to the evaluation of negotiation strategies' effectiveness and their overarching influence on the overall performance of these governmental entities.

Through collaborative relationships, shared resources and joint value creation, it gives limited attention to the behavioral and psychological factors that sustain such relationships. Thus, Social Exchange Theory (SET) explains how trust, reciprocity, commitment, and perceived fairness influence interactions between exchange partners. SET posits that individuals and organizations engage in relationships when the perceived benefits outweigh the associated costs and when exchanges are considered equitable (Cook et al., 2013). The theory emphasizes that fairness in resource allocation, information sharing, and decision-making strengthens trust and long-term cooperation. In the context of this study, SET complements RVT by explaining the social mechanisms through which strategic procurement practices enhance collaborative capability. It suggests that procurement partners are more willing to collaborate, share knowledge, and commit resources when they perceive procurement relationships as fair and mutually beneficial. Consequently, collaborative capability is strengthened, leading to improved operational performance. Therefore, while RVT explains the value generated from collaboration, SET explains the behavioral conditions necessary for creating and sustaining those collaborative relationships.

### 2.2.3 Collaborative Network Theory

Collaborative Network Theory (CNT) marks a paradigm shift in organizational studies, originating in the late 20th century with scholars like Ranjay Gulati as pioneers. The theory challenges the conventional hierarchical models by proposing that organizations, instead of functioning in isolation, intricately weave interconnected networks to achieve strategic objectives (Kapucu & Hu, 2020). CNT places a strong emphasis on relationships, information flow, and collaboration, offering a departure from traditional top-down approaches that dominated organizational thinking (Milward & Provan, 2023).

The evolution of Collaborative Network Theory (CNT) has witnessed a dynamic trajectory, propelled by the scholarly contributions of visionaries like Steve Borgatti and Martin Gargiulo. These scholars have not only expanded the scope of CNT but have also delved into dimensions that significantly enhance the theory's applicability in diverse organizational contexts. By

exploring aspects like network structure, social capital, and knowledge sharing, their work has imbued CNT with a richer understanding of the complex interplay within collaborative networks (Wang & Hu, 2020). The examination of ties and brokerage mechanisms in collaborative networks, a hallmark of Borgatti and Gargiulo's contributions, exemplifies the depth to which CNT can penetrate the intricacies of modern organizational dynamics (Ganguly, Talukdar & Chatterjee, 2019). These developments add layers to the theory but also underscore its versatility in capturing the nature of collaborative relationships in contemporary organizational settings.

While critics argue that Collaborative Network Theory may oversimplify the intricacies of organizational networks, potentially overlooking power dynamics and competition, proponents assert its realism in depicting the interconnected nature of the modern business landscape (Kapucu & Hu, 2020). The theory's focus on relationships and information exchange aligns well with the contemporary understanding of organizational collaboration. The theory posits that networks are held together by mutual understanding, trust and commitment rather than by authority alone. Organizations with high collaborative capability invest in open communication, relationship building and conflict resolution mechanisms. In procurement context, it means that procurement officers in the Independent Offices and Commissions must be able to foster trust with suppliers, manage cultural differences and sustain long-term relationships beyond a single tender cycle. Without this capability: sourcing, contract management and negotiation efforts fail to produce results.

CNT focuses on managing interdependence whereby it argues that collaborative networks involve shared risks, resources and risk that require joint decision making. Collaborative capability therefore includes the ability to align internal processes with partner processes, coordinate activities and creates structure for problem solving. For independent offices and commissions, this translates into cross-functional procurement teams, supplier involvement in planning and mechanisms for sharing performance data. Capability further ensures that collaboration moves from intent to practice. Collaborative Network Theory links collaborative capability to performance outcomes, whereby the theory contends that collaborative advantage accrues only when organizations can effectively manage the collaborative process itself. In other words souring, contract management and negotiation practices will not translate into improved operational performance unless the organization has the underlying capability to collaborate. Therefore,

collaborative capability acts as a moderating mechanism through which CNT's network logic is operationalized in procurement.

CNT views procurement as a network activity not a transaction. When commissions engage suppliers, other commissions and oversight bodies in collaborative procurement e.g. joint tendering, shared vendor databases, they build procurement networks. CNT points that networked procurement reduces duplication and increases value. In this regard, collaborative capability is the heart of CNT. It is the organization's competence to build trust, manage interdependencies, share risks/rewards and coordinate across institutional boundaries. For independent commissions, it is the capability to collaborate with their stakeholders such as service providers, government of the day, shareholders, managers etc without compromising independence. Additionally, CNT predicts that commissions with strong collaborative networks plus high collaborative capability will have better operational outcomes: faster in timeliness, cost reduction, customer service and quality practices.

In the specific context of this study, Collaborative Network Theory emerges as a pertinent framework for demonstrating collaborative capabilities within independent offices and commissions in Kenya. By acknowledging the critical role of relationships and collaborative networks with both external and internal stakeholders, CNT gives a frugal focus that supply chain firms in Independent offices and commissions may utilize to evaluate the impact of collaborative capabilities on the overall performance of these governmental entities. The theory's emphasis on interconnectedness positions it as a robust tool for understanding the intricate dynamics of collaborative efforts within organizational settings.

## 2.3 Conceptual reviews

### 2.3.1 Concept of Contract Management

Contract management, initially coined as Contract Lifecycle Management, emerged as a transformative perspective on contract management, challenging traditional linear approaches. Pioneered by scholars such as Richard Craswell and Sanford J. Grossman in the late 20th century, CLM redefined contracts as dynamic entities with a lifecycle encompassing initiation, negotiation, execution, monitoring, and potential renewal or termination (Macbeth, 2012). The key argument was that a comprehensive understanding of the entire contract lifecycle is essential for effective management (Algarni, 2021).

Over time, CLM evolved from a conceptual framework to a practical methodology for organizations. Early dimensions of CLM focused on recognizing the various stages of a contract and the specific requirements at each phase. The argument expanded to emphasize the need for structured processes, documentation, and strategic considerations throughout the lifecycle (Algarni, 2021). Scholars like Craswell delved into the complexities of contract initiation, negotiation dynamics, and ongoing monitoring mechanisms (Jafari, 2021). Nonetheless, critics of CLM argue that its implementation can be resource-intensive and complex, requiring organizations to invest in technology and training (Sacklén, 2018). Additionally, some contend that a rigid adherence to CLM principles might hinder adaptability in rapidly changing business environments (Kahler, 2013).

For this study, CLM was highly relevant to understanding contract management as it addresses aspects such as contract planning, monitoring and evaluation and documentation. In the context of independent offices and commissions in Kenya, CLM provides a systematic approach to enhance transparency, reduce risks, and ensure contractual compliance. By acknowledging contracts as evolving entities, CLM aligns with the complexities involved in managing contracts within governmental entities, offering a robust framework to augment strategic procurement practices and ultimately enhance organizational performance.

### 2.3.2 Concept of Strategic Procurement Practices

Oliech & Mwangangi (2019) explains that a strategy is a technique of activities of how to arrive at your selected position. It is the way an organization, party or individual follows in order to achieve some set target. Procurement is an important function of the wider supply chain management spectrum, buoyed by other functions such as purchasing, warehousing & distribution, logistics, contract administration and sales and marketing. Supply chain management emanated in 1980s in the works of Oliver and Webber and defines a coordinated system of parties, functions, resources, information from producers to the final users with a view to ensure products are delivered to final consumers. Simply put, supply chain management refers to coordination of the flow of materials and resources to the consumers. Procurement is the process by which purchasing organizations identify need for materials and acquire such materials through follow up and expedition up to delivery.

In the context of public organizations, strategic procurement practices take on unique characteristics and challenges that distinguish them from their private-sector counterparts. Scholars have recognized the distinctive nature of public procurement and the need for tailored strategic approaches to address the complexities inherent in government operations (Benchekroun, *et al*., 2022). Strategic procurement practices essentially entail an approach to acquiring goods and services that goes beyond traditional, transactional processes (Allen, 2021). One of the key differentiators is the presence of regulatory frameworks and compliance requirements that public organizations must navigate. Public procurement is often subject to stringent legal and ethical considerations, necessitating a strategic framework that that entails to achieve efficiency, cost-effectiveness while at the same time ensuring adherence to legal provisions. Guarnieri & Gomes (2019) highlight the significance of aligning strategic procurement practices with legal requirements to mitigate risks and enhance accountability. In the United States, the emphasis on strategic procurement gained momentum with various government initiatives, such as Federal Acquisition Regulation (FAR) as well as emphasizing performance-based contracting.

Procurement is the acquisition of goods, services and works, it also refers to the way a company handles its events through a proper management of supply chain (Sollish & Semanik, 2012). To improve an organizational performance, an organization should be able to choose the procurement practices that will be best suited in order to achieve the end objective hence firm performance. The main aim for procurement practice is to ensure that an organization gets value for money when committing expenditure. Previous works have suggested that among the main strategic practices in public procurement includes: Sourcing, Contract Administration and Negotiation **(**Sollish & Semanik, 2012).

Sourcing is the identification, evaluation and choosing service providers to obtain goods, services and works necessary for business firm operations. According to Weigel & Ruecker (2017), sourcing can be a strategic procurement practice with key aspects such as supplier selection, base rationalization and supplier development. Contract management as according to Brunjes *et.al* (2023), consist of a cyclical process that entails planning, monitoring & evaluation and documentation and associated with superior performance of public procurement fields. As concerned to independent offices and commissions in Kenya, contract management provides a systematic approach to enhance transparency, reduce risks, and ensure contractual compliance.

Zohar (2015) defines negotiation as finding a resolution to conflicts between people and groups and sharing resources in such a way that a win-win situation is achieved. According to Dreu (2014) negotiation involves resolving conflicts of interest between two or more parties, this resolution is achieved through persistent communication. Negotiation is a tool that can be used to create a good relationship with others (Stevens *et al*., 2018).

### 2.3.3 Concept of Collaborative Capability

The concept of collaboration capability examined at various analytical levels in contemporary literature concerning both inter- and intra-organizational relationships (Smith & Jones, 2022). This encompasses areas such as alliances, cross-functional teams, intra-firm coordination, and organizational innovation. Collaboration involves individuals or organizations working together to accomplish tasks and reach shared objectives. It is a recursive process where multiple parties engage deeply, reflecting more than just a convergence of interests, as is typical in cooperative efforts; it entails a collective commitment to achieving a unified goal (Wagner, 2021). Notably, organizations that collaborate can leverage greater resources, enhance their visibility, and secure more rewards in competitive environments characterized by limited resources (Smith & Jones, 2022).

Collaborating with various external entities, including service providers, final consumers, competitors, and learning institutions such as universities and government labs enhances knowledge sharing and market knowledge acquisition within a firm (Clauss & Kesting, 2017) This collaboration leads to the enrichment of the firm's current knowledge base, which subsequently boosts its innovation capabilities (Luzzini *et al*., 2015. Theoretical submissions, including Power (2014), Fawcett, *et al*., 2019), and Kithure (2022), have demonstrated the role of collaborative capability in determining public sector firm performance. Power (2014) defined collaborative capability as the ability of firms to communicate, share resources, get and provide feedback to its stakeholders and showed that collaborative capability positively impacted firm performance, particularly in quality and operations, while Fawcett *et al*.'s research in Europe emphasized factors like strategy purity and orientation in moderating the relationship of collaborative capability and performance. These studies highlighted the importance of collaboration as a determinant of alleviating outcomes, with Fawcett *et al*. (2019) highlighting the benefits of interdepartmental relationships.

Initially, public institutions had adversarial relationships with their suppliers; however, they are beginning to create more collaborative relationships through negotiations. In Africa, for instance, scholars often highlight the importance of public sector performance in fostering economic development, reducing poverty, and promoting good governance. In a study by Thusi, Matyana & Jili, (2023) that was done in South Africa, it was reported that performance can be measured by analyzing the timeliness of service delivery and this was facilitated through negotiation about the key terms of service. Delays in service delivery have cascading effects, particularly in critical sectors such as healthcare and education. In Burkina Faso, delivering high-quality services is also essential for evaluating public sector and organizations should engage in negotiations with suppliers to determine quality and pricing tradeoffs (Sylla *et al*., 2019).

### 2.3.4 Firm Operational performance

Performance is a highly subjective term that described differently across organizations and regions. In public administration, the pursuit of performance involves balancing diverse and often conflicting objectives (Cabral *et al*., 2019). As per the nature of public organizations, they were tasked with serving a broad array of stakeholders, each with distinct expectations and demands. Moreover, public institutions operate in an environment characterized by a constant evolution of social, economic, and political factors, further complicating the quest for sustained performance (Gieske *et al*., 2020).

From a global perspective, diverse governance models, cultural contexts, and historical legacies shape the meaning of public sector performance. Each region or country may prioritize different aspects of performance based on its unique challenges and development priorities. Lapuente & Van de Walle (2020) notes that one crucial dimension of performance within public institutions is service effectiveness, measuring the extent to which public institutions meet their mandated objectives and provide valuable services to citizens. This includes assessing the quality, accessibility, and responsiveness of services offered (Steiss, 2019). Governments are entrusted with taxpayer money, necessitating efficient financial management and the avoidance of wastage or misuse. In light of this role, another vital dimension to measure performance is fiscal responsibility, emphasizing the prudent and accountable use of public resources. In this case, public firms must manage their costs effectively, driving costs out of their cost bases. Ensuring cost effectiveness is an important measure of performance in public firms (Lapuente & Van de

Walle, 2020). Other measures include efficiency and productivity, which focus on optimizing the use of resources to achieve desired outcomes (Steiss, 2019). This involves streamlining processes, eliminating redundancies, and enhancing the overall effectiveness of public programs. Additionally, transparency and accountability serve as critical dimensions of performance in the public segment.

Purchasing firms in the public sectors can improve outcome of their results by paying far greater attention to the strategies and capabilities they need to perform their mandates successfully. In Johnson and Filippini (2013), firms can achieve remarkable results by understanding exactly what capabilities are and what they are not, as well as determining which strategies and capabilities are pivotal and can be considered as important to the effective carrying out of activities which are essentially arousing competitive scales in performance, and which are background abilities that a company must have to be feasible contenders in market shares. In addition, it entails defining such capacities especially strategic capabilities in more complex details to make it clear what a particular chain firms want to achieve, and using what specific type of capabilities (Cabral *et al*., 2019). As supply chain firm endeavors to achieve competitive edges in global market shares, they can manage their strategic capabilities that are central, in order to deal with changing business global angles buoyed by rapid shifts in consumer preferences.

Service delivery is simply the execution of service design to achieve a desired outcome. Service is when a customer who know what they want, and what to expected from it; timeliness, scope and the quality in service delivery (Gieske *et al*., 2020). To provide and deliver with impulsive minimal delay is quality in service. Responding back to consumers in an opportune and effective way is timeliness. This includes delivery times, the manner in which orders are respond to, supplier ability to provide goods, services and works and acknowledge to return requests (Jiang *et al*, 2021). Studies by Pungpho & Wanarat, (2017) divulge that Timeliness refers to the short period wait for orders and the returns, and the period in which they are to deliver.

## 2.4 Empirical Literature Review

### 2.4.1 Sourcing Practices and Operational Performance

Wagner, Grosse-Ruyken, and Erhun (2018) examined the factors influencing sourcing flexibility and its subsequent effect on organizational performance. Grounded in information processing

theory, the study investigated whether supplier evaluation influenced information integration within firms, which in turn affected sourcing flexibility and ultimately organizational performance. The study adopted a quantitative survey design involving 336 manufacturing firms in Europe and the United States. The findings established positive relationships between supplier evaluation, information integration, supplier flexibility, delivery performance and financial performance. These findings demonstrate that sourcing activities can contribute to organizational performance through enhanced supplier evaluation, information integration and flexibility. However, the study was conducted in manufacturing firms in Europe and the United States, creating a contextual gap that warrants further investigation of sourcing practices in public sector organizations in developing economies. The current study therefore extended this body of knowledge by examining sourcing practices within independent offices and commissions in Kenya and introducing collaborative capability as a moderating variable.

Empirical reviews on Tesfaye (2019) examined sourcing as a strategic function and its influence on organizational performance, using MOHA Soft Drinks in Ethiopia as the study context. Strategic sourcing was conceptualized in terms of communication, procurement planning, long-term vendor relationships, and supplier development. The study adopted a descriptive research design and collected primary data from supply chain officers. The target population comprised 102 respondents, with 85% of the questionnaires being correctly completed and returned. The findings established that the organization practiced various aspects of strategic sourcing and that strategic sourcing had a positive relationship with organizational performance. Communication, procurement planning, and supplier development were particularly influential. Although the study provided evidence of the contribution of strategic sourcing to organizational performance in an African setting, it was conducted in a private manufacturing organization and conceptualized sourcing using communication, procurement planning, vendor relationships, and supplier development. The current study differed by conceptualizing sourcing through supplier selection, supplier base rationalization and supplier development programs, while also examining the moderating role of collaborative capability.

Soita and Osoro (2023) investigated the effect of sourcing strategies on organizational performance, focusing on Total Energies Kenya Limited in Mombasa. Guided by transaction cost theory, the study examined sourcing strategies and their relationship with organizational

performance. The findings indicated a positive association between sourcing strategies and organizational performance, with effective sourcing being associated with increased profitability, reduced production costs, improved product quality, and increased market share. The study demonstrates the relevance of sourcing strategies to organizational performance within Kenya. Nevertheless, the study focused on a private energy-sector organization and was anchored on transaction cost theory. The current study adopted the relational view of strategic management, with complementary insights from social exchange and collaborative network perspectives, to examine sourcing practices in independent offices and commissions in Kenya.

In other context, Kinuthia and Amuhaya (2023) investigated sourcing strategies and firm performance at Murang'a Cooperative Creameries. The study examined parallel sourcing, delegated sourcing, multiple sourcing, and single sourcing. It was anchored in systems theory, network theory, and agency theory and adopted a descriptive research design involving 76 employees drawn from finance, accounts, sales, maintenance, production, quality assurance, and human resource functions. The findings established that sourcing strategies significantly influenced organizational performance. The study provided useful evidence that the configuration of sourcing strategies can influence organizational outcomes. However, its focus was a cooperative organization and its sourcing dimensions differed from those adopted in the current study. The current study focused on supplier selection, supplier base rationalization, and supplier development programs, while further examining collaborative capability as a moderator of the relationship between strategic procurement practices and performance in independent offices and commissions.

Theoretical submissions by Dede and Theuri (2018) examined sourcing practices and procurement performance using the Kenya Bureau of Standards (KEBS) as the case organization. The study was grounded in stakeholder theory, core competency theory, and relational exchange theory. A descriptive case study design was employed, targeting a population of 308 participants, from which a stratified random sample of 172 respondents was selected. Data were collected using questionnaires and analyzed using regression models. The findings demonstrated a positive relationship between multiple sourcing, green sourcing, global sourcing, and procurement performance. In contrast, single sourcing was negatively associated with procurement performance. Overall, the study established that sourcing strategies influenced procurement

performance at KEBS. While the study is relevant because it addresses sourcing within a Kenyan public-sector organization, its focus was limited to KEBS and procurement performance, while the current study focused on independent offices and commissions and examines operational performance. It also introduced collaborative capability as a moderator.

Similarly, Nganu and Mwangi (2018) examined the impact of procurement procedures on the performance of Kenyan state corporations. The study focused on strategic sourcing practices, procurement planning, supplier relationship management, and procurement methods as independent variables, with organizational performance as the outcome variable. Organizational performance was assessed using indicators including service delivery efficiency, cost reduction, quality of outputs, and timeliness of procurement processes. The researchers adopted a descriptive survey research design and used structured questionnaires to collect data, which were analyzed using descriptive and inferential statistics. The findings indicated that strategic sourcing practices and supplier relationship management positively and significantly influenced organizational performance, while effective procurement planning enhanced efficiency and cost control. Although the study demonstrates the importance of strategic procurement practices in Kenyan state corporations, it did not examine the moderating influence of collaborative capability. The current study therefore extended this line of inquiry by examining sourcing as a strategic procurement practice and assessing how collaborative capability moderates its relationship with performance in independent offices and commissions.

Study by Kamau and Barasa (2024) examined the influence of strategic sourcing procedures on procurement performance in Lamu County Government. The study focused on supplier development practices, e-sourcing practices, financial evaluation practices, and outsourcing practices as independent variables, with procurement performance as the dependent variable. A descriptive research design was adopted, targeting 201 respondents, from whom a sample of 52 respondents was selected. Data were collected using structured questionnaires and analyzed using descriptive and inferential statistics through SPSS. The findings showed that strategic sourcing procedures positively and significantly influenced procurement performance. Supplier development and e-sourcing had positive contributions, outsourcing demonstrated a moderate positive effect, while financial evaluation had a significant favorable influence on procurement performance. Despite its relevance to public procurement in Kenya, the study focused on a county

government and conceptualized strategic sourcing differently from the current study. The current study examined supplier selection, supplier base rationalization, and supplier development programs and focused on operational performance in independent offices and commissions, while incorporating collaborative capability as a moderating variable.

Discussions in Angila (2017) examined the role of sourcing strategies in the performance of South Nyanza Sugar Company Limited. The study considered open sourcing, single sourcing, multiple sourcing, and partnership sourcing and was grounded in transaction cost economics and the resource-based view. A correlational design was used, with all 120 employees participating through structured questionnaires. Regression and correlation analyses were used to examine the relationships between sourcing strategies and organizational performance. The findings indicated that sourcing strategies explained only a small proportion of the variance in performance ($R^2$ = .023). Multiple sourcing significantly influenced performance, while partnership sourcing was a positive but statistically insignificant predictor. The study therefore suggests that the relationship between sourcing and performance may be influenced by other organizational factors. This observation provides a basis for examining a moderating variable in the current study, specifically collaborative capability. Unlike Angila (2017), the current study was situated within independent offices and commissions and conceptualizes sourcing through supplier selection, supplier base rationalization, and supplier development programs.

Ojwang, Muturi, and Alala (2018) examined sourcing and supplier performance among non-governmental organizations in Kisumu City, Kenya. The study was guided by Just-in-Time theory and transaction cost theory and adopted a descriptive research design. The target population comprised 35 respondents from five NGOs, namely Plan International, Impact Research, World Vision, the Center for Disease Control, and Faces. Questionnaires were used to collect data, while descriptive statistics and multiple regression were applied in analyzing the findings. The study established that single sourcing was time-efficient, enhanced the quality of purchased goods, reduced operating costs, and significantly and positively improved performance. Although the study provides evidence from a localized Kenyan setting, it focused on NGOs rather than public independent offices and commissions. Moreover, it focused on single sourcing differing from the broader sourcing dimensions adopted in the current study.

Reviewed studies on sourcing practices have concentrated on sourcing practices and firm performance association, exploring diverse sectors and countries. For instance, (Nganu and Mwangangi (2018) established that strategic sourcing positively affected the performance of state corporations in Kenya. Similarly, Kamau and Barasa (2024) reported that supplier development, e-sourcing, financial evaluation, and outsourcing significantly enhanced procurement performance in Lamu County Government. In the private sector. Wagner, Grosse-Ruyken, and Erhun (2018) spanned across European and US regions; Tesfaye's (2019) study situated in Ethiopia's MOHA Soft Drinks. Meanwhile, (Soita and Osoro, 2023; Kinuthia and Amuhaya, 2023) were in Kenya, hut the former was in the energy sector and the latter in cooperative creameries. This scholarly works ignored independent offices and commissions. Likewise, the reviewed studies have been founded on different theories, (Kinuthia and Amuhaya, (2023): on systems, network, and agency theory; Wagner *et al*., 2018: Information Processing Theory; Soita & Osoro, (2023): Transaction Cost Theory; Dede & Theuri, (2018): Stakeholder theory, Core competencies theory, relational exchange theory; Angila (2017): Transaction Cost economic theory and Resource-Based View; Ojwang, Muturi and Alala (2018):Just-In-Time and transaction cost theories Additionally, Kinuthia and Amuhaya (2023) adopted a triad of theories: Systems, Network, and Agency Theory. Thus, information on effect of sourcing practices on performance of independent offices and commissions in a Kenyan context when all these are considered is nonexistent. The current paper sought to build upon this foundation, incorporating collaborative capability as a crucial moderator in the sourcing-performance nexus to fill this gap.

### 2.4.2 Contract Management and Operational Performance

In the global arena, scholars have examined contract administration and the effectiveness of firms in diverse environments and industries. One such study is by Mamavi *et al*., (2018) done in France. Writers concentrated on contract management as a lens that firms can use in implementing a strategy towards reducing their supplier base. The study relied on secondary data, analyzing a supply base database that consisted of over 560,000 transactions between 2006 and 2011. It focused on buying organizations that were public entities. The study findings revealed that buyers who reduce their supplier base are those who have little verification of contract execution and those whose contracts are less negotiable. Therefore, the less the contract verification or transaction execution, the more likely the buying organizations are to reduce their supplier bases. This study is beneficial in understanding the completeness of a contract, as an aspect of contract

management and the behavior of buyer organizations within public procurement firms in France. This research will further add to the understanding of the contract management and performance, particularly in the perspective of independent offices and commissions. Drawing on a similar empirical approach with primary data collection, my study extended the investigation beyond contract management to encompass a broader spectrum of strategic procurement practices (sourcing, negotiation). Collaborative capability was a focal point in my study, acting as a moderator in exploring the dynamics between contract management and overall procurement performance.

A study by Rene (2015) explored management of contract maturity in the US Navy. In a target population of 62 respondents, the author adopts a survey-based research design. A questionnaire and interview schedules guided the collection of data (qualitative and quantitative). To actualize analysis of primary data collected, the author adopted descriptive statistics that include exploratory factor analysis and the mean and standard deviation employed to achieve of validity of the measuring instrument. Findings depicted mixed results: pre-award contract had a positively and significantly affected performance while post-award contract negatively and significantly affected performance.

In Indonesia, Muhammad, Saoula, Umair & Issa (2019) investigated management of contracts, how Indonesia firms performed. These included customer satisfaction, budgetary compliance, project delivery, project quality, cost benefit analysis, support for the solution, effectiveness in the future, effectiveness of the solution, and nature of the solution. Questionnaires sent out to 70 employees within several firms in Indonesia. The study demonstrated that the length of contract positively influenced the cost-benefit analysis as well as the nature of the solution of performance characteristics. On the other hand, project quality and project delivery negatively affected length of contract but explains 14.5% variance in firm performance ($R^2 = .145$). This study went further to investigate contract management, alongside negotiation and sourcing, their impact on firm performance in a Kenyan perspective.

In Tanzania, Changalima, Mchopa & Ismail (2023) investigated contract management as a potential moderator in the relationship between monitoring of suppliers, how well procurement functions performed within public organizations. The study was conducted using questionnaires that were administered to 179 procurement employees within public firms in Tanzania. Analysis

of the data disclosed that one, monitoring suppliers had a significant correlation with how the buying organizations performed. Second, contract management had a significant effect as a moderator between the two variables, positively affecting the relationship. The study recommended that buying organizations should focus on monitoring key suppliers for various indicators, such as price, quality and timeliness. It also highlighted the importance of effective contract management, training employees and reinforcing their responsibilities as related to the above. However, as elaborated in the study, it has key limitations such as contextual limitation to Tanzania, which affects the type of public laws that were used for public procurement. This study built upon these insights by investigating the dynamics of contract management as an independent variable, alongside other strategic procurement practices, their bearing on performance in the context of independent offices and commissions.

Nsanzimana & Mulyungi (2018) examined the function of contract management on road construction performance in Kigali, Rwanda. Writers employed a descriptive study design for a population of 62 respondents, from which a sample of 62 arrived at through a census survey. Field data collected by administering of a questionnaire. Furthermore, data analysis was actualized through inferential statistics and descriptive statistics with the use of SPSS software Writers demonstrated a positive significant effect of excellent communication, management techniques, contractor’s quality compliance (taken as contract management practices elements) and performance of road projects in Rwanda.

Most recently in Kenya, Muinde (2022) conducted a study within Kenyan public universities to find out how and if management of contracts influenced how the procurement function performed. It is argued there has been an increase in universities in the country, however, the existence of challenges such as delays, financial losses and incompletion of procurement projects, linked to contract management issues. Contract management conceptualized to consist of aspects such as contract records management, accountability, transparency, procurement risk management, and buyer-supplier collaboration. The study carried out by using interviews and questionnaires to obtain data from 31 public institutions. Secondary sources also considered in the study. The findings demonstrated that the contract management dimensions did positively influence performance of firms, obedience of the public procurement law and regulation was a significant moderator between the two. Muinde's (2022) research provides insightful information about the

challenges faced by Kenyan public universities in contract management and its impact on procurement performance. This study went further to investigate contract management, alongside other strategic procurement practices- negotiation and sourcing, with collaborative capability as a moderator within the context of independent offices and commissions.

Empirical review on contract management by Kipkemoi & Makori (2021) explored impact of Contract Management Practices on Performance public entities in Kenya. Grounded on contract management, constraints, transaction cost economic and principal agent theories. A descriptive research design employed on a target participant of 162 respondents with a questionnaire as research instrument. The writers used a correlational and multiple regression means to guide data analysis. Further, descriptive statistics encompassing mean, Standard deviation, percentages and frequencies analyzed quantitative data with content analysis used to scrutinize qualitative data. Results proved that Contract management techniques had a favorable and substantial impact on performance. The study advised managers and decision makers in public organization to continuously evolve policies meant to harness contracting practices.

Mwangi (2020) examined the contract management and its impact on county government's performance in Kenya basing on the case of Kiambu County. In a descriptive research design and quantitative paradigm, writer uses a target population of 96 respondents, which were surveyed. It anchored on contract theory and resource based theory that guided the study. Specifically, the paper assessed role of contract cost management, contract relationship management and performance of Kiambu County. In the analysis of data, correlation, which tested association between variables, and multiple regression models adopted. The results depicted that contract management practices including contract cost management and contract relationship management significantly improved performance of county governments in Kenya.

Kariuki & Paul (2019) on contract management practices and procurement performance of County Government in Kenya in the case of County Government of Garissa used three theories: theory of change, competency theory, stakeholder's theory and contingency theory. Writers use a descriptive design on a target participant of 600 staffs in the county. A stratum of 10 departments arriving at a sample of 180 respondents is used. Raw data was gathered through a questionnaire and analyzed by multiple regression means. Results indicate that contract management,

managerial capacity, contract relationship, contract planning considerably improved procurement performance.

Salome (2018), explored contracting practices on performance of housing construction projects in Nairobi County, Kenya by casing on National Construction Authority (NCA). Principal agent theory, project management competency theory, public interest theory and leadership theory were theories that grounded the study. Researcher guided by a descriptive research design in a target respondnet of 66 participants, from which a sample of 66 respondents selected through a census survey design. Writer operationalizes questionnaire as a research instrument for filed data. In addition, multiple regression analysis and correlation analysis guided the analysis of raw field data, whereas qualitative data scrutinized by content themes as well as document analysis. The findings found that contractor prequalification procedures, contractor regulation procedures, and supervision were positively correlated, sub-contracting and performance of National Construction Authority.

In Kenya, Mungech & Ndeto (2024) conducted a study on contract management and how it influences procurement practices in metropolitan county governments. Theories supporting the study are stakeholder and social exchange. Writers adopted cross-sectional survey design with the study focusing on a target population of 320 individuals, with a sample size of 176 participants. Data primarily collected using questionnaires, and the quantitative descriptive statistics, including means, standard deviations, and frequencies, were used to analyze the data. Statistics that are inferential, including Pearson correlation and regression analysis, were also applied to analyze the data guided the analysis. The findings alluded that contract management practices including contracts records management and vendor management had a significant effect on performance of procurement in the metropolitan county in Kenya.

The empirical literature on contract management and firm performance reveals diverse differences. For instance, variations in the measurement of contract management variables complicate direct comparisons. For instance, Mamayi *et al*. (2018) in France focused on aspects like contract verification and negotiability, while Rashid Issa (2019) in Indonesia explored dimensions like cost-benefit analysis, solution characteristics, and project timelines. Ignoring important elements (terms of service, pricing, approaches). Furthermore, the introduction of moderating variables, such as legal compliance in Muinde's (2022) study and the negative

moderating effect in Changalima, Mchopa & Ismail's (2023) work, adds a layer of complexity to the analysis. In addition, Kipkemoi & Makori (2021) study was grounded on contract management theory, constraints theory, transaction cost economic theory and principal agent theory; Mwangi (2020) was grounded on contract theory and resource based view theory; Kariuki & Paul (2019) based on theory of change, competency theory, stakeholder theory and contingency theory. Additionally, Salome (2018) guided by principal agent theory, project management competency theory, public interest theory and leadership theory. Ignoring relational view, social exchange and collaborative network theories. The current study sought to address these shortcomings.

### 2.4.3 Negotiation practices and Operational Performance

In Nigeria, Nwankiti (2023) conducted a study in Nigeria to explore how negotiation worked and affected outcomes in buyer-vendor relationships within the oil and gas sector. The study relied on secondary data and reviewed literature around buyer-vendor relationships, the objectives of such relationships, approaches to developing positive relationships, and the role of negotiation in continuously improving buyer-vendor relationships. The study was exploratory in nature and focused on how negotiation could reduce opportunism, which had been identified as a factor contributing to the failure of buyer-vendor relationships in the oil and gas industry. The findings demonstrated that buyer-vendor relationships had developed through supplier involvement, supplier development, and relationship building. The relationships had depended on long-term contracts, commitment, and trust, while negotiation had been important in determining the quality of buyer-supplier relationships and generating both price and non-price benefits. Although the study had provided useful insights into negotiation and buyer-supplier relationships, it had relied exclusively on secondary data and had focused on the Nigerian oil and gas sector. The current study therefore extended these insights by examining strategic negotiation in independent offices and commissions in Kenya using primary and secondary data, while incorporating collaborative capability as a moderator of the relationship between strategic procurement practices and performance.

Mwagike and Changalima (2022) examined the attributes and skills required for effective negotiation from the perspective of professionals working within procurement functions. The study had been grounded in human capital theory and had adopted a cross-sectional research

design. Data had been collected using questionnaires from 297 procurement employees. The findings had highlighted the importance of planning, communication, persuasion, and listening skills in negotiation. The study had also established that attributes such as emotional control, honesty, flexibility, and trust had been important in determining effective negotiation. The study had therefore demonstrated that successful negotiation had depended not only on procurement procedures but also on the skills and attributes possessed by procurement professionals. However, the study had focused on Tanzania and had concentrated on negotiation skills and attributes rather than negotiation outcomes or organizational performance. The current study extended this inquiry by examining strategic negotiation as a strategic procurement practice and its influence on operational performance within independent offices and commissions in Kenya.

Scholarly works on negotiation practices by Tumwebaze et al. (2020) examined the effect of negotiation as a conflict-resolution strategy on employee performance at Kampala Capital City Authority (KCCA). The study had been anchored on Conflict Resolution Theory, which had viewed negotiation as a mechanism for resolving workplace disputes and improving organizational outcomes. A quantitative cross-sectional survey design had been employed, targeting 498 technical staff, from whom a sample of 222 employees had been selected using simple random sampling. Structured questionnaires had been used to collect data, while descriptive statistics and regression analysis had been applied in analyzing the findings. The results had revealed that negotiation had a significant positive effect on employee performance, indicating that effective negotiation had contributed to improved efficiency, effectiveness, and quality of work. Although the study had demonstrated the importance of negotiation in a public-sector environment, it had treated negotiation primarily as a conflict-resolution mechanism and had focused on employee performance. The current study differed by examining negotiation as a strategic procurement practice and by assessing its relationship with operational performance in independent offices and commissions.

Similarly, Tusime (2016) investigated the relationship between negotiation practices and the performance of local government organizations in Uganda. The study had been grounded in negotiation theory and had adopted a survey research design involving a target population of 50 respondents. Questionnaires had been used to collect primary data, while descriptive statistics, including means and standard deviations, and linear regression had been used for data analysis.

The findings had revealed a significant positive effect of negotiation management practices on the performance of local government organizations. The study had therefore provided evidence that negotiation practices had contributed to organizational performance within local government institutions. However, the study had been conducted in Uganda and had not specifically examined negotiation as a strategic procurement practice within Kenyan public institutions. The current study addressed this contextual gap by examining strategic negotiation within independent offices and commissions in Kenya.

A study conducted by Charukula and Sama (2024) examined the effect of negotiation practices on public procurement performance at the National Health Insurance Fund (NHIF) in Tanzania. The study had adopted a descriptive research design and had focused on negotiation planning, negotiation skills, and negotiation ethics as key aspects of negotiation practices. Primary data had been collected using systematic questionnaires and analyzed using descriptive statistics, correlation analysis, and multiple regression analysis. The findings had established that negotiation planning, negotiation skills, and negotiation ethics had significantly contributed to effective negotiation and improved public procurement performance. In particular, the study had established significant positive relationships between negotiation planning, negotiation skills, negotiation ethics, and public procurement performance. ResearchGate+1 The study had therefore provided important evidence from a public-sector procurement environment within East Africa. However, it had been conducted in Tanzania and had focused on public procurement performance at NHIF. The current study extended these findings by examining strategic negotiation within independent offices and commissions in Kenya and by introducing collaborative capability as a moderating variable.

Mgobo, Wairo, and Iravo (2019) investigated the relationship between negotiation strategies and the performance of commercial banks in Kenya. The study had been grounded in the Resource-Based View theory and had employed a descriptive research design under a positivist approach. Forty-three commercial banks that had operated for at least six years between 2011 and 2016 had constituted the units of observation. The target population had comprised 436 bank employees, from whom a sample of 272 employees had been selected using stratified random sampling. Primary data had been collected from bank employees using structured questionnaires. The data had been analyzed using descriptive statistics, correlation analysis, and regression analysis. The

findings had revealed that negotiation practices had a significant and positive effect on the performance of commercial banks in Kenya. While the study had demonstrated the importance of negotiation to organizational performance in Kenya, it had focused on private financial institutions. The current study therefore extended the evidence to public-sector institutions, specifically independent offices and commissions.

Nzangi and Wachiuri (2023) examined the influence of procurement practices, including negotiation, sourcing, contract management, and supplier relationships, on the performance of firms listed on the Nairobi Securities Exchange. The target population had comprised 104 listed firms, from which 83 firms had been selected, with one respondent representing each firm. The study had combined primary data collected using questionnaires with secondary data obtained from company reports. The findings had established that the procurement practices examined had significantly influenced organizational performance, although negotiation had demonstrated a comparatively lower influence than some of the other procurement practices. The study had provided evidence that negotiation formed part of procurement practices that influenced organizational performance within Kenya. However, its focus had been on publicly listed firms rather than public-sector institutions. The current study therefore extended the investigation to independent offices and commissions in the Kenyan public sector.

Chepng'etich (2020) examined the influence of strategic negotiation on the performance of devolved systems of government in Kenya. The study had been conducted within the county government sector and had been anchored on Strategic Management Theory and Negotiation Theory. Strategic negotiation had constituted the predictor variable, while performance of devolved systems of government had constituted the outcome variable. The researcher had adopted a cross-sectional survey design incorporating both quantitative and qualitative approaches. The target population had consisted of employees in finance and procurement departments across all 47 county governments, while a sample of 186 respondents had been drawn from 10 counties through stratified random sampling. Data had been analyzed using descriptive statistics and multiple regression analysis. The findings had revealed that strategic negotiation had a moderate positive and statistically significant influence on the performance of devolved systems of government. Strategic negotiation had contributed to improved procurement outcomes through better pricing, delivery terms, and supplier relationships. The study had therefore provided direct

evidence of the relevance of strategic negotiation to performance within Kenya's public sector. However, it had focused on county governments rather than independent offices and commissions. The current study consequently extended the investigation to independent offices and commissions and incorporated collaborative capability as a moderator.

In a Kenyan context, Mutua and Namusonge (2023) examined contract negotiation practices and the performance of state corporations in Nairobi City County, Kenya. The study had been guided by Transaction Cost Economics Theory and Institutional Theory and had adopted a descriptive research design. The target population had comprised 156 participants, while a sample of 100 respondents had been selected using simple random sampling. The respondents had included procurement officers, finance officers, quality control officers, and legal officers. Questionnaires had been used to collect primary data, while Pearson product-moment correlation and regression analysis had been conducted using SPSS version 24. The findings had indicated a moderate and statistically significant relationship between payment terms and the performance of state corporations ($r = 0.378$, $p = 0.001$). The study had also established a strong positive relationship between procurement laws and regulations and the performance of state corporations ($r = 0.684$, $p = 0.001$). The findings had demonstrated that contract negotiation-related factors and the regulatory environment had been associated with the performance of state corporations in Nairobi City County. However, the study had focused on state corporations and had examined contract negotiation through payment terms and procurement laws and regulations. The current study differed by examining strategic negotiation as a strategic procurement practice, focusing on operational performance of independent offices and commissions and incorporating collaborative capability as a moderating variable.

The studies on negotiation and performance reveals various gaps. Chepng'etich (2020) study in Kenya explored procurement strategies, including negotiation, using a survey methodology to show that negotiations improve performance. However, it is contextually limited to the Malaysian manufacturing sector. Nwankiti's (2023) study in Nigeria focused on negotiation's role in buyer-supplier relationships within the oil and gas industry. The research employed secondary data and thematic analysis. While the study provides valuable insights, it is limited to a specific industry and lacks a primary data component. Mwagike and Changalima's (2022) Tanzanian study delved into negotiation skills and attributes of procurement professionals. Grounded in the human capital

theory, the cross-sectional study identified key skills and attributes crucial for effective negotiation. However, its focus on Tanzania and the absence of negotiation outcomes pose limitations to generalizability. Nzangi and Wachiuri's (2023) study in Kenya examined the impact of negotiation and other practices on the performance of Nairobi Securities Exchange listed firms. Writers covered negotiation, sourcing, contract management, and supplier relationships. This study however focused on listed firms, ignoring the realism of independent offices and commissions. Hitherto, discussions in (Charukia & Sama, 2024; Mgobo, *et al*., 2019: Nahumi & Eric, 2023) adopted a descriptive research design, alluding mixed findings on role of negotiation on performance. These writers did not employ a correlational survey design in a quantitative model, against these backdrops; the present study aimed to address this gap by evaluating the impact of negotiation practices on firm performance in the context of constitution commission's independent offices in Kenya.

### 2.4.4 Collaborative Capability Practices and Operational Performance

Feng and Lihua (2021) examined the relationship between firm collaboration capability and new product development performance among manufacturing firms in China. The study investigated firm collaborative capability as the predictor variable, new product development performance as the outcome variable, and heterogeneous knowledge acquisition as the mediating variable. Grounded in the Knowledge-Based View and the Resource-Based View. Quantitative research design employed using structured questionnaire to obtain data. The target population comprised of 253 firms. The findings showed that firm collaborative capability significantly improved new product development performance both directly and indirectly through heterogeneous knowledge acquisition, highlighting the importance of external collaboration and diverse knowledge in strengthening innovation performance.

Scholarly works by Wang, Zhou, Zhao, and Zeng (2025) investigated the relationship between collaborative culture, product quality, and firm performance in China. The study investigated collaborative culture as the independent variable, product quality as the mediating variable, and firm performance the dependent variable. The study was based on the Resource-Based View and organizational culture perspectives. The researchers employed a quantitative, longitudinal research design using panel data. The target population comprised all Chinese A-share listed non-financial companies, with the final sample drawn from firms that met the study's inclusion criteria

after excluding observations with missing data and special-treatment (ST) status. The findings revealed that a strong collaborative culture significantly improves product quality, which in turn enhances firm performance, with stronger effects observed in labor-intensive firms, highly innovative industries, and regions characterized by higher levels of social trust.

Waardenburg, Groenleer, and Jong (2025) examined the relationship between performance management and collaborative governance through a comprehensive review of existing literature. The study focused on collaborative governance as the context and performance management as the key variable influencing collaboration outcomes. It was informed by Collaborative Governance and Performance Management theories, which explain how performance measurement and accountability affect inter-organizational collaboration. The authors adopted a qualitative systematic literature review methodology, synthesizing evidence from published studies on collaborative governance and performance management. The target population comprised peer-reviewed scholarly publications on collaborative governance, and the sample consisted of relevant studies selected through predefined inclusion criteria. The findings revealed that performance management plays a crucial role in collaborative governance but faces challenges related to accountability, conflicting stakeholder objectives, and balancing learning with performance measurement, underscoring the need for more adaptive and collaborative performance management systems.

According to Wamba, Giannakis, Foropon, Childe, Roubaud and Gunasekaran (2019), investigated the relationship between big data analytics capability, in the humanitarian supply chain, organizational culture, trust, and collaborative performance are critical. The study was conducted in the humanitarian relief context using data from organizations involved in disaster response. It examined big data analytics capability as the independent variable, collaborative performance as the dependent variable, organizational culture as a moderator, and swift trust as a mediator. Grounded in Organizational Information Processing Theory and the Competing Values Framework. The authors employed a quantitative survey research design analyzing data with structural equation modelling (SEM) collected from humanitarian organizations. The target population comprised humanitarian relief organizations engaged in civil–military disaster operations, with responses obtained from managers and professionals involved in humanitarian logistics. The findings displayed that big data analytics capability significantly enhances

collaborative performance by fostering swift trust, and that a supportive organizational culture strengthens this relationship, leading to more effective humanitarian supply chain collaboration.

Xin, Xu, Haunschild, Tong, and Liu (2025) examined configurational paths of collaborative performance in innovation ecosystems, using empirical data from collaborative patents in the Natural Language Processing (NLP) field in China. The study conceptualized innovation environment, innovation actors, and innovation networks as the key independent dimensions, while collaborative innovation performance (measured through patent quality/knowledge breadth) was the outcome variable. Grounded in complex systems theory and innovation ecosystem theory. Quantitative methodology was adopted with target population of 1,473. The findings revealed that no single factor is necessary for high collaborative performance, but multiple equifinal configurations can lead to high performance. The study identified four main configurational paths—environment-dominant, actor-dominant, actor–network dual-driven, and environment–actor synergistic patterns—highlighting that innovation actors play the most central role in driving collaboration outcomes across ecosystems.

Theoretical submission by Gautam, Poudel, and Bahadur (2025) investigated the effect of collaborative culture on performance in higher education institutions, in Nepal. The study examined collaborative culture as the independent variable and organizational performance of HEIs as the dependent variable, with the knowledge management as a mediating variable. Grounded in the Knowledge-Based View and systems thinking theory. The authors used a quantitative, cross-sectional survey design, applying structured questionnaires to collect data. The sample included 236 respondents drawn from 580 faculty members. The findings revealed that collaborative culture significantly enhances institutional performance, both directly and indirectly through the knowledge management process, while teamwork and diversity further strengthen performance outcomes. The study concluded that effective internal collaboration and strong knowledge management systems are essential for improving HEI performance in developing-country contexts.

In another study, Mata, Martins, and Inácio (2023) examined the relationship between collaborative innovation, absorptive capacity, intellectual capital, and financial performance of IT firms in the Portuguese SME sector. The study was grounded in the Resource-Based View and Knowledge-Based View. Collaborative innovation as independent variable, financial performance

as the dependent variable, while absorptive capacity acted as a mediator and intellectual capital as a moderator. The researchers used a quantitative research design based on structured questionnaires and applied PLS-SEM (Partial Least Squares Structural Equation Modeling) for analysis. Data were collected from 308 managers and employees of small and medium-sized IT enterprises in Portugal. The findings revealed that collaborative innovation significantly improves financial performance both directly and indirectly through absorptive capacity. Additionally, absorptive capacity strengthens knowledge utilization, while intellectual capital enhances the link between collaborative innovation and absorptive capacity, leading to improved firm performance.

Yulianto, Hamidah, and Herlitah (2025) examined organizational performance in public sector auditing institutions in the context of digital transformation and governance reforms in Indonesia. The study focused on dynamic capabilities and strategic alignment as independent variables, while organizational performance (in terms of effectiveness, adaptability, accountability, and public value creation) was the dependent variable. Theories guiding the study were Resource-Based View and Dynamic Capabilities Theory, supported by Goal-Setting Theory and Socio-Technical Systems Theory. The authors employed a systematic literature review (SLR) methodology, synthesizing studies from 2021–2025 related to public sector auditing and performance management. The target population consisted of peer-reviewed academic studies on public sector performance and auditing, and the sample included selected literature meeting predefined inclusion criteria. The findings revealed that high organizational performance is achieved when digital infrastructure, governance systems, leadership, and knowledge management are well aligned, enabling adaptive and learning-oriented audit institutions. The study concludes that dynamic capabilities and strategic alignment jointly transform public audit performance from efficiency-based outcomes to adaptive, knowledge-driven public value creation

Study by Lee and Hung (2022) conducted a meta-analysis to examine the relationship between collaboration and organizational performance in the public sector across different countries. The study focused on collaboration as the independent variable and organizational performance as the dependent variable. Theories that grounded the study were Resource-Based View, Resource Dependence Theory, Institutional Theory and Transaction Cost Theory, which explain how collaboration enables organizations to access strategic resources and improve performance. Researchers employed a quantitative meta-analysis by synthesizing findings from 26 empirical

studies comprising 251 effect sizes. Their analysis revealed that collaborative capability had positive significant effect on organizational performance. They further found that public-public collaborations generated stronger performance outcomes than public-private or public-nonprofit collaborations. The study concluded that organizations that develop effective collaborative capabilities achieve superior performance through enhanced coordination, trust, and resource sharing.

Machisu, Nyaberi, Wachiuri, and Miroga (2026) examined the moderating influence of collaborative capability on the link between supplier integration and the performance of Kenyan cement manufacturing enterprises. Supplier integration as the independent variable, firm performance as the dependent variable, and collaborative capability as the moderating variable. A descriptive survey research design was adopted, target population of 450, with a sample of 212 respondents. Structured questionnaires are used to collect data. Analysis done through descriptive statistics, correlation, linear regression, and hierarchical regression techniques. The findings revealed that supplier integration has a positive and significant effect on firm performance and that collaborative capability significantly strengthens this relationship. The study concluded that fostering collaborative capability enhances the effectiveness of supplier integration, leading to improved performance.

Onyango (2025) investigated the social processes that influence the effectiveness of public sector collaborations in Kenya, focusing on collaborative governance in the implementation of public policies, particularly anti-corruption initiatives. The study was conducted in the Kenyan public sector, where public sector collaboration was the main variable examined, with effective joint action and policy implementation as the outcome variables. The research was anchored on Collaborative Governance Theory, Trust Theory, and Institutional Theory, emphasizing that trust, coordination, and organizational culture are essential for successful inter-agency collaboration. The study employed a qualitative case study design. The findings revealed that public sector collaborations in Kenya are constrained by weak inter-agency trust, politicization, poor coordination, unclear governance structures, fragmented responsibilities, and overlapping institutional mandates. The study concluded that strengthening collaborative capability through mutual trust, informal knowledge sharing, leadership development, and supportive organizational cultures is critical for improving joint action and enhancing public sector performance in Kenya.

The reviewed literature on collaborative capability practices and performance demonstrates that firstly, authors concentrated on different contexts (Feng and Lihua, 2021: collaborative capability and performance among manufacturing firms in China; Wang, et al., 2025, Collaborative culture and firm performance in China Service firms; Gautam et al., 2025 collaborative culture and performance of higher education institutions in Nepal), thus these studies did not consider Independent firms in a developing economy. Secondly, reviewed studies adopted different methodologies and designs (Mata, et al., 2023: Partial Least Squares Structural Equation Modeling, SEM; Yulianto, ET AL., 2025: systematic literature review (SLR) methodology from 2021–2025), as such they did not consider regression analysis in a quantitative lens. Thirdly, reviewed works on collaborative capability employed different theories, like the works of (Yulianto, et al., 2025: Goal-Setting Theory; Lee and Hung, 2022: Resource-Based View, Resource Dependence Theory & Institutional Theory; Onyango, 2025: Collaborative Governance Theory). Against this backdrop, the current study sought to actualize these gaps by looking at effect of collaborative capability on performance in Independent Offices and Commissions of Kenya

### 2.4.5 Strategic Procurement Practices, Collaborative Capability, Operational Performance

Power (2014) sought to shed light on the dynamics of procurement collaboration from the viewpoint of vendors, the research centered on 105 manufacturers in the Australian region. Specifically, the study designed to focus on collaboration practices as well as capability and how they affected performance. Essentially, collaborative capability treated as the moderating variable between vendor practices and firm performance (measured through cost, quality, and performance). Power (2014) looked at collaborative capability in terms of internet-based technologies designed to enhance the capability of vendors to collaborate with their customers. The results showed a strong positive relationship between collaborative practices and performance, particularly in terms of quality and operational efficiency. However, no direct connection found with cost performance. Additionally, the study highlighted that collaborative capability had a positive and significant impact on overall performance. As the study progresses, it uses these insights to explore potential variations in the impact of collaboration capability across different sectors or geographical contexts. This study was contextualized in independent offices

and commissions within the Kenyan region. It will also have strategic procurement practices as the independent variable.

Ping, Chinn, Yin and Muthuveloo (2018) in Malaysia, examined the role of information technology capacity, collaboration capability and business intelligence on performance of public sector firms. The writers used a cross sectional design on a target participant of 818 public companies. Primary data was collected using structured questionnaire. Findings showed mixed results; on one hand both business intelligence and collaborative capability helps raise overall results; while on the other hand, there exists a negative significant role of information technology capability on outcome results of public companies in Malaysia.

Fawcett, Fawcett, and Swanson (2019) that sought to investigate the link between collaboration across functions and how firms performed conducted a later study. The study contextualized in Europe and based on the idea that there exists a gap in knowledge since existing literature presents mixed results on the subject. It therefore, introduces potential moderating factors, which include aspects of strategy such as its purity and orientation and the subsequent effect on its collaborative capability. The study founded on two theories- organizational conflict and constituency based. Primary data obtained by the use of surveys addressed to managers in the supply chain function. The results highlighted the significant role of strategic factors in shaping the relationship between collaborative capability and performance. The study suggested that organizations actively engage in practices to ensure alignment with these factors, their strategies to reconcile the differing objectives across the functions within companies. This study provided important insight about collaborative capability as in independent variable that moderated by firm strategy to influence performance in Europe. This study went further to explore the procurement practices- performance relationship with collaborative capability as the moderating factor. It also focused on a new context; the constitution commissions and independent offices in Kenya.

In Kenya, Kithure (2022) submitted discussions on green supply chain practices and how they influenced performance within manufacturer companies. The study introduced a moderating variable- collaborative capability and sought how to investigate how it influence competitive strategies and performance within the industry. The target included registered 2017 manufacturers in Kenya, which totaled to around 943. Sampling led to the selection of 330 firms and surveys sent out to procurement and operational officers within the firms. The analysis revealed that in the

manufacturer firms, green procurement did positively improve the performance. Additionally, the firm's capability to collaborate significantly moderated the link between the two variables. This study was built up on Kithure's insights to investigate how collaborative capability influences the effectiveness of strategic purchasing practices- such as negotiation, contract management and sourcing within independent offices and commissions.

Githaiga and Oloko (2024) explored the impact of collaborative capability strategies on the performance of pharmaceutical companies in Kenya. The study grounded in the Linkage, Leverage, and Learning (LLL) theory. The researchers utilized both descriptive and explanatory research designs, focusing on a sample of 31 local pharmaceutical firms. Primary data collected via structured questionnaires, and the analysis performed using SPSS software, applying both descriptive and inferential statistical techniques. The findings revealed that collaborative capability has a positive and significant effect on the competitive performance of pharmaceutical firms.

In a study by Pooe and Munyanyi (2019), the effect of collaborative capability on the supply chain efficiency of small and medium-sized enterprises (SMEs) in Zimbabwe assessed. A cross-sectional survey design employed, with data collected from 388 SMEs. Regression and correlation analyses s used to examine the data. The results demonstrated a positive and significant relationship between collaborative capabilities and supply chain competence, indicating that collaborative capabilities are crucial to the success of SMEs' supply chains and may influence the firm's sustainable competitive advantage, consistent with the dynamic capabilities theory. This research highlights the potential for improving overall supply chain competence in SMEs by empirically testing the relationships between collaborative capabilities and supply chain effectiveness.

Choi and Hwang (2015) explored the function of collaborative competence as a moderator of the link between green supply chain management techniques and performance in South Korean manufacturing enterprises. The study was guided by the Natural Resource-Based View and Relational View theories. A descriptive study design was adopted, with a target population of 230 companies. Data was acquired via surveys and analyzed using descriptive statistics, correlation, and multiple regression approaches. The study found that collaborative competence considerably moderates the link between green supply chain management practices and business performance.

Samad et al. (2021) investigated the moderating influence of collaborative competence in the link between green supply chain management practices and performance in Malaysia's manufacturing sector. The study surveyed 270 people based on the Natural Resource-Based View theory. Questionnaires were used to collect data, which was then analyzed using structural equation modelling (SEM). The findings demonstrated that collaborative competence has a positive and significant moderating effect on the link between green supply chain management practices and performance in Malaysia's industrial industries.

Scholarly works have explored the role of collaborative capability as a moderator in different environments, with a focus on different geographical contexts. For example, Power (2014) conducted a study in Australia, examining procurement collaboration dynamics from the vendor's perspective. Collaborative capability measured in terms of internet-based technologies and served as a moderating variable between vendor practices and firm performance, ignoring it as a moderator on strategic procurement practices and performance relationship. In addition, Fawcett *et al*., (2019) introduced strategy purity and orientation as a moderator to demonstrate a notable effect in the relationship between collaborative capability and performance, thereby ignoring the use of collaborative capability as a moderator. Similarly, Kithure (2022) looked at the moderating role of collaborative capability on the link between green supply chain practices and performance in manufacturing companies, in this disregarding the moderation of procurement practices and performance. In the same way, Choi and Hwang (2015) examined collaborative capability as a moderating factor in the link between green supply chain management strategies and performance in manufacturing firms in South Korea. Additionally, Samad *et al*. (2021) focused on collaborative capability as a moderator in the connection between green supply chain management practices and performance in manufacturing industries in Malaysia.

In all this, the reviewed literature disclosed some studies employed collaborative capability as a moderator in different relationships (Power, 2014; Kithure, 2022; Choi and Hwang, 2015; Samad *et al*., 2021) disregarding strategic procurement practices and performance association. Likewise, previous works have not used collaborative capability as a moderator, such as the works of (Fawcett *et al*., 2019). In the same vein, some empirical works operationalized collaborative capability diversely (Power, 2014), neglecting important measures such as interdepartmental associations, communication and feedback). Previous studies on strategic procurement practices

and performance association showed weak relationship (Angila, 2017; Rashid Issa, 2019), denoting that moderation effects may exist. None of the reviewed works studied moderating role of collaborative capability in strategic procurement and performance, especially in independent offices and commissions. This study thus, sought to achieve this objective.

# CHAPTER THREE

# RESEARCH METHODOLOGY AND DESIGN

## 3.2 Research Philosophy and Design

The beginning of a research design is the paradigm. A research paradigm serves as the philosophical foundation that guides the researcher's approach to studying a specific topic. Paradigms play a crucial role in shaping the methodology and design of a study by providing a lens through which researchers interpret data, formulate hypotheses, and draw conclusions (Ugwu, Ekere & Onoh, 2021). The study employed a quantitative paradigm. This paradigm is essential in influencing the direction and structure of the study by using quantitative models of data. The overarching objective of the study was to show how variables interrelate to influence organizational performance within the context of Kenyan independent offices and commissions. The research paradigm served as the overarching frameworks that guide researchers in selecting appropriate design; it also helped in aligning the study with the appropriate methods for data collection and analysis. Also, it assisted in aligning the study objectives with broader theoretical perspectives, ensuring coherence and consistency in the research process (Gannon, Taheri, & Azer (2022),

The researcher adopted a positivist philosophical lens. Positivism prioritizes empirical evidence and sought to unearth universal laws and regulations governing the social behavior through systematic observation and measurement (Gannon, Taheri, & Azer, 2022; Ugwu, Ekere & Onoh, 2021). Positivism philosophy was appropriate for the study because of its compatibility with the research objective of establishing relationships between strategic procurement practices, collaborative capability and performance in independent offices and commissions, Kenya. The believe in positivists emphasizes impartiality, empirical evidence of phenomena as well as structured observation and aligns well with the intention of investigating the causal association of chosen variables. The positivism philosophy allows for the rigorous evaluation of hypotheses and the use of quantitative methods to analyze data, facilitating the identification of structures, correlations, and causal relationships among the variables under investigation (Park, Konge, & Artino, 2020). Additionally, the positivism approach provides a structured framework for data collection and analysis, ensuring the reliability and validity of research findings (Ugwu, Ekere & Onoh, 2021).

A design is a crucial aspect of the research course, providing a systematic plan of actualizing a study and collecting relevant data to address the inquiry questions or objectives. According to Sileyew (2019), research design encompasses the general strategy or blueprint that outlines the approach used in a study, including the methods of collecting data and analysis. The study employed a correlational survey design, which aimed to evaluate how the chosen variable relate or associate without implying causality. This design allowed the researcher to investigate the extent to which adoption and use of one variable instigates changes in another variable, showing fundamental understanding into potential associations or patterns of behavior (Seeram, 2019).

The correlational survey design is particularly appropriate in the current research as it aligned with the research objective of exploring the relationships between strategic procurement practices, collaborative capability, and organizational performance in independent offices and commissions in Kenya. By using this design, the study can identify potential correlations between these variables, shedding light on their interdependencies and contributing to a better understanding of their influence on organizational effectiveness (Bloomfield & Fisher, 2019). Previous researchers (Wanyonyi, 2023 & Ntongai, 2016) have adopted and successfully used the design, an important ground for employing the design in the current study.

### 3.1 Introduction

This chapter discusses the research methodology utilized in the study, including the research design, study location, target population, sample procedures, and data gathering and analysis methodologies.

### 3.3 Study Area

The study focused on 16 Independent Commissions and Offices in Kenya, a nation in East Africa, bordered by Tanzania to the south, Uganda to the west, and South Sudan to the northwest, and Ethiopia to the north, and Somalia to the northeast. Strategic location in the region makes it an ideal study area due to its prominence in East Africa and its significance in regional politics and governance. Additionally, Kenya's status as a developing country with a diverse political landscape provides a rich context for examining the performance of independent offices and commissions within its governance structure. Despite the promise that these offices and commissions hold, empirical reports indicated suboptimal performance attributed to the absence of strategic factors such as strategic procurement and inadequacies in the implementation of

procurement policies (Amollo, 2012; Mugo & Deya, 2023; Musyoka, 2018; Okoth, 2019). The list of 16 offices, attached on Appendix I.

### 3.4 Target Population

Target population generally refers to the entire group of individuals or elements with characteristics of interest to the researcher that he aims to study and draw conclusions about phenomena (Dubey & Kothari, 2022; Mugenda & Mugenda, 2003). Dubey & Kothari (2022) further explain that identifying the target population enables researchers to assess the feasibility of the study and provides a foundation for generalizing the results to a broader population. In order to establish the target population in a research study, the researchers must clearly define the research question and objectives in a way that will reveal the characteristics or attributes of interest. This allows researchers to determine the criteria that individuals or entities must meet to be included in the target population (Coe, Waring, Hedges & Ashley, 2021). Next, researchers need to conduct a thorough review of existing literature and data sources to mine data about the target units of interest, including demographic characteristics, geographical location, and relevant variables.

For this study, the target population primarily focused on the headquarters of constitutional and independent commissions and offices located in Nairobi, Kenya. Specifically, target population consisted of heads of procuring units, procurement staffs (procurement officers) and heads of departments in 16 firms, making 216 respondents. These individuals were selected because of their pivotal roles in overseeing, implementing strategic procurement practices, are key decision-makers responsible for supply chain management and their perspectives, and insights deemed crucial in firm operations. Therefore, the target population of the study was 216 respondents comprised of (16 Heads of procurement, 136 procurement officers and 64 departmental heads as depicted in table 3.1 below.

**Table 3.1: Target Population**

| S/No | Firms | Heads of Procurement | Procurement Officers | Departmental Heads | Total |
|---|---|---|---|---|---|
| **1** | Ethics Anti-Corruption Commission-EACC | 1 | 11 | 4 | 16 |
| **2** | Independent Electoral and Boundaries Commission-IEBC | 1 | 15 | 4 | 20 |
| **3** | Parliamentary Service Commission | 1 | 8 | 4 | 13 |
| **4** | Independent Policing and Oversight Authority-IPOA | 1 | 8 | 4 | 13 |
| **5** | Kenya National Human Rights and Equality Commission-KNHREC | 1 | 7 | 4 | 12 |
| **6** | National Lands Commission-NLC | 1 | 9 | 4 | 14 |
| **7** | Judicial Service Commission-JSC | 1 | 10 | 4 | 15 |
| **8** | Commission on Revenue Allocation-CRA | 1 | 9 | 4 | 14 |
| **9** | Public Service Commission of Kenya-PSCK | 1 | 10 | 4 | 15 |
| **10** | Kenya Law Reforms Commission-KLRC | 1 | 5 | 4 | 10 |
| **11** | Teachers Service Commission-TSC | 1 | 8 | 4 | 13 |
| **12** | National Police Service Commission-NPSC | 1 | 10 | 4 | 15 |
| **13** | Auditor-General | 1 | 8 | 4 | 13 |
| **14** | National Gender and Equality Commission-NGEC | 1 | 6 | 4 | 11 |
| **15** | Commission on Administrative Justice-CAJ | 1 | 6 | 4 | 11 |
| **16** | Commission of University Education-CUE | 1 | 6 | 4 | 11 |
| | TOTAL | 16 | 136 | 64 | 216 |

***Source: (HR Records, Resource Centers Independent Commissions and Offices, 2024)***

### 3.4.1 Sample and sample size determination

A sample refers to a subset of a larger population that is selected for a study to make inferences about that entire population (Williman, 2022). In order to reach an accurate sample, the researcher adopted Krejcie and Morgan (1970) sample size estimation table (see Appendix V). From a population of 216 respondents. When selecting a sample size outside the margin, Chua (2009) argues that sample size close to the highest margin group is selected since a higher size gives a higher precision level.

With a target population, N = 216, the estimated sample size is n = 140 (close to N = 220)

Given that N= 216 is close to N= 220 than N= 210

The sample size was therefore n=140

**Table 3. 2: Sample size**

| S/N | Units of Analysis | Heads of Procurement | Procurement Officers | Departmental Heads | Total |
|---|---|---|---|---|---|
| 1 | Ethics Anti-Corruption Commission-EACC | 1 | 4 | 4 | 9 |
| 2 | Independent Electoral and Boundaries Commission-IEBC | 1 | 4 | 4 | 9 |
| 3 | Parliamentary Service Commission | 1 | 4 | 4 | 9 |
| 4 | Independent Policing and Oversight Authority-IPOA | 1 | 4 | 4 | 9 |
| 5 | Kenya National Human Rights and Equality Commission-KNHREC | 1 | 4 | 4 | 9 |
| 6 | National Lands Commission-NLC | 1 | 4 | 4 | 9 |
| 7 | Judicial Service Commission-JSC | 1 | 4 | 4 | 9 |
| 8 | Commission on Revenue Allocation-CRA | 1 | 4 | 4 | 9 |
| 9 | Public Service Commission of Kenya-PSCK | 1 | 4 | 4 | 9 |
| 10 | Kenya Law Reforms Commission-KLRC | 1 | 4 | 4 | 9 |
| 11 | Teachers Service Commission-TSC | 1 | 4 | 4 | 9 |
| 12 | National Police Service Commission-NPSC | 1 | 4 | 4 | 9 |
| 13 | Auditor-General | 1 | 3 | 4 | 8 |
| 14 | National Gender and Equality Commission-NGEC | 1 | 3 | 4 | 8 |
| 15 | Commission on Administrative Justice-CAJ | 1 | 3 | 4 | 8 |
| 16 | Commission of University Education-CUE | 1 | 3 | 4 | 8 |
| | **TOTAL** | **16** | **60** | **64** | **140** |

***Source: (HR Records, Resource Centers Independent Commissions and Offices, 2024)***

Simple random sampling is a widely used method in scientific research, particularly when the population is highly homogeneous. In this approach, individual firms were randomly chosen to participate in the study, ensuring that each member of the population has an equal chance of being chosen (Bhardwaj, 2019). It is the simplest and most common sampling method, where units are selected one by one, each with the same probability of selection at every stage (Singh, 2003). In the current study, given that the sampling frame encompassed 1 Head of Procurement and 4 departmental heads with their numbers parsimoniously small, all of them were selected as samples. The remaining units of observation, Procurement officers, were randomly selected until the last unit, National Police Service Commission (NPSC). From this, 3 respondents were picked from the remaining units (Auditor General (AG), National Gender & Equality Commission (NGEC), Commission on Administrative Justice (CAJ) and Commission for University Education (CUE), making up a total of 140 final sample respondents. As Acharya (2013) notes, this method guarantees that every individual in the population has an equal opportunity to be included in the sample. Similarly, Thomas (2020) emphasizes that simple random sampling ensures fairness by giving each person in the population an equal probability of selection.

### 3.5 Data Collection

This segment gives an analysis of the data sources, types, collection processes, instruments as well as reliability and validity tests relevant to this study.

#### 3.5.1 Data Type and Sources

The writer adopted a comprehensive approach to data collection, incorporating use of primary data obtained through questionnaire. Primary data can be said to be information collected openly from original sources through various approaches such as surveys, interviews, or explanations (Mazhar, Anjum, Anwar & Khan, 2021). Primary data sources provide firsthand insights, perspectives, and experiences from key stakeholders, offering a deeper understanding of strategic purchasing practices, collaborative capability, and organizational performance. Primary data was directly obtained from the target population comprising heads of procurement units, procurement officers and departmental heads in the independent offices and commissions in Kenya. This type of data served as the cornerstone of the research. Through a structured questionnaire, this primary data yielded firsthand insights into the strategic procurement practices, collaborative capability, and performance metrics of these organizations.

### 3.6.2 Research Procedure

The research began by obtaining the required permit from the School of Graduate Studies (SGS) at Maseno University i.e. research proposal approval (Ref No. PhD/BE/00104/020). Once this was secured, an approval from the Maseno University Ethical Review Committee (Ref No. MUSERC/01524/25) was further obtained. This documents were crucial in enabling the research obtain a government approval, i.e. the National Commission for Science, Technology, and Innovation (NACOSTI), which was subsequently obtained after presenting the first two approvals from the university (Ref. No. 502267). The permits were essential in ensuring the study adhered to ethical standards and legal requirements, safeguarding the rights and welfare of all involved as well as ensuring the integrity of the research process (Engel, Gebauer & Hüncke, 2015). To set off field work, the researcher wrote a personal introduction letter and attached it to the approvals. The data collection instrument was also attached in readiness to dispatching to the study respondents.

Before the beginning of actual main field work, reliability and validity tests were conducted on the measuring instrument on one firm (Controller of Budget). To facilitate data collection, the drop-and-pick method was used to gather responses from the chosen participants. This approach involved distributing questionnaires to the targeted individuals and then collecting them on prearranged dates. The drop and pick method offers several advantages, including convenience and efficiency in reaching a geographically dispersed sample while minimizing logistical challenges such as transportation and scheduling conflicts (Allred, 2011). To avoid common method bias, the study sampled different number of units of observation in each of organization (EACC, 9; IEBC, 9; PSC, 9; etc.) and data was collected at different times from each firm. In order to guarantee the principles of autonomy and informed consent, the researcher specifically made it known to the respondents that the data would be used for academic purposes only, and that no any other production or percolation of the data would be made to any other organization or entity. In the interest of the firms, a copy of the research findings was to be availed to them after completion of the research process on request. Moreover, this approach allowed for flexibility in data collection, enabling respondents to complete the questionnaires at their convenience (Jackson-Smith, Flint, Dolan, Trentelman, Holyoak, Thomas, & Ma, 2016). Once the questionnaires are collected, they were meticulously prepared for the data entry and analysis process.

Given that majority of study units of analysis were stationed in Nairobi in diverse areas, a team of 5 research assistants was employed to expedite the collection process. Firstly, permission was sought from the identified constitutional commissions and independent offices. To expedite this process, the researcher provided them with all necessary documentation and authorizations, including detailed research proposal and consent forms. Additionally, informal visits were made to the offices to establish rapport and tentative dates for the actual study after securing informed consent and voluntary participation by respondents. These visits serve to build relationships with crucial interested parties and respondents, facilitating scheduling and coordination of the research activities. In the first instance, only one firm completely filled and returned back the collection tool (Public Service Commission, PSC) of Kenya this making a return percentage of 0.71%. Many of the respondents in the firms felt they were being investigated and therefore could not just physically fill and return the questionnaire as these firms were highly independent, autonomous and structured. As such, the researcher suggested filling an online developed data collection tool to guarantee autonomy and independency in taking part in the study. Many of the respondents agreed with this approach, indicating that this was ideal since they could fill at their comfort and using their mobile phones without necessarily having to be in their offices under the guise of a tight work schedule and understanding bosses. With this new development therefore, the researcher prepared and administered a collection link developed in google forms. Some respondents however had difficult, and a more simplistic approach of going with the questionnaire home and then filling it, taking screenshots or scanning of the questionnaire to email of lead researcher or any research assistant was agreed. This simplistic approach resulted in 130 respondents completely filling the online tool and returning, making 92.86%. In around January 2026, the principal investigator made a personal visit to the firms that had not responded in either suggested methods. 10 respondents that had not yet taken part in the study were visited. From this approach, 7 firms (Commission on Revenue Allocation, CRA; National Lands Commission, NLC; Teachers Service Commission, TSC; National Gender and Equality Commission, National Police Service Commission, NPSC, Auditor General and Independent Policing and Oversight Authority, IPOA) responded. The final dataset was composed online through (https://drive.google.com/open?id=1maibN2CCVh_L9nOH9fp0AM8WLq0JkaxE&usp=gmail)

link, this making a total of 137 respondents dully filling and returning the questionnaire, making a response rate of 97.89% and setting stage for analysis.

### 3.6.3 Data Collection Instruments

Data collection is the process of obtaining information from various sources in order to answer research questions or achieve research objectives. Its goal is to systematically collect accurate and relevant data that may be analyzed to answer research questions, test hypotheses, or achieve research objectives (Dubey & Kothari, 2022). Proper data collecting is critical for guaranteeing the reliability and validity of research findings, as it offers an empirical foundation for drawing conclusions and making decisions in research projects. By using suitable data collection instruments and methods, researchers may ensure the quality and integrity of the data acquired, hence increasing the credibility and validity of their study findings.

Questionnaires served as the primary research instrument in the current study, structured using a Likert scale to estimate respondents' perceptions, attitudes, and opinions regarding strategic procurement practices, collaborative capability, and organizational performance. The Likert scale offers a structured approach, allowing participants to rate their agreement or disagreement with measures of key variables on a scale, facilitating quantitative analysis of the data (Joshi, Kale, Chandel & Pal, 2015). Questionnaires chosen over other data collection methods for several reasons. Firstly, the nature of the research, which aimed to establish correlations between variables, according to Kothari & Garg (2014) aligns best with the use of questionnaires. Questionnaires provide a standardized format for collecting data from a large sample size efficiently, making them suitable for correlational research designs. Additionally, questionnaires allowed for anonymity and confidentiality, encouraging respondents to provide honest and unbiased responses, which is essential for obtaining reliable data in sensitive topics such as organizational performance and procurement practices.

The questionnaire comprised several sections aligned with the conceptual framework of the research. The first part A, focused on gathering background information about the participants including their gender, age, position within their firms, name of the organization (optional), highest academic attainment, the duration of employment within the organization and registration with a professional body. Following Section A, Sections B to F which delved into specific items measuring strategic procurement practices, collaborative capability, and organizational performance. Section B explored sourcing-related factors such as supplier selection, base rationalization, and development programs. Section C covered contract administration aspects,

including planning, monitoring &evaluation, and documentation. Section D focused on negotiation, encompassing statements about terms of service, pricing, and negotiation styles & approaches. Section E examined collaborative capability, with statements on communication, interdepartmental relationships, and feedback. Lastly, Section F assessed organizational performance, addressing factors such as timeliness in service delivery, the scope of service delivery, and improvements in service quality. The questionnaire, along with its sections, provided as Appendix II for reference.

### 3.7 Pilot test

Pilot study refers to a preliminary study or a prior study carried out before a larger parent study often designed to ascertain feasibility of a project or reliability and validity of a research measuring tool. In this, the researcher conducted a pilot study to ascertain the reliability and validity of measuring tool. To enable the researcher estimate instrument validity and reliability, a preliminary study was carried out on 5% of the population, representing 11 respondents. In the words of Zikmund *et al*. (2004) as quoted in (Connelly, 2008; George and Mallery, 2013; Khothari, 2004) a pilot sample should be 5% for small population units or 10% for large parent populations of 1000 respondents. For the purpose of this study, a preliminary study on 11 respondents was carried out. One firm (Controller of Budget) with 11 respondents made up of (1 head of procurement, 6 procurement staffs, 4 heads of departments) was piloted. This firm subsequently was not included in the final units of analysis. All the remaining 16 firms, making up 216 respondents were surveyed as final target population.

**Table 3. 3: Pilot study sample**

| No | Category | Unit of observation | Pilot Sample |
|---|---|---|---|
| **1** | **Controller of budget** | **Head of procurement** | **1** |
| | | Procurement staffs | 6 |
| | | Departmental heads | 4 |
| | **Total** | | **11** |

**Source: (Field survey, 2025)**

### 3.7.1 Instruments Reliability Tests

Scholars have defined reliability testing in various ways, but at its core, it serves as a pivotal component to ensure the relevance and solidity of data collection tools employed in data collection. Heale, & Twycross (2015) submits that reliability testing is described as evaluating the extent to which a measurement tool produces consistent and repeatable results over time and under varying conditions. It essentially measures how accurately the instrument reflects the construct it is designed to assess. Another viewpoint is provided by Mohamad, Sulaiman, Sern, and Salleh (2015) emphasizes that reliability testing is essential for establishing the trustworthiness and dependability of the data collected through various instruments. Reliability testing helps to minimize the potential for measurement error, thereby enhancing the credibility and robustness of the research outcomes (Boumans, 2004).

To evaluate the reliability of the data collection instruments in this study, the Cronbach's alpha coefficient was used as the methodological approach. Cronbach's alpha is a commonly applied statistical tool for assessing internal consistency, particularly for evaluating the reliability of scales or composite measures (Mohamad, Sulaiman, Sern & Salleh, 2015). The coefficient ranged from 0 to 1, with higher values reflecting greater internal consistency among the items in the scale. In this study, a Cronbach's alpha value above 0.70 was considered acceptable, as recommended by McNeish (2018), indicating sufficient reliability of the instrument. The Statistical Package for the Social Sciences (SPSS) was used to calculate the Cronbach's alpha coefficient, based on the responses from the survey. The analysis involved in putting the survey data into SPSS, using its built-in functions to compute the Cronbach's alpha value. Reliability assessment was based on established thresholds, where higher Cronbach's alpha values signify stronger internal consistency (McNeish, 2018).

**Table 3. 4: Reliability test results**

| Variable | No. item Pools | Cronbach's Alpha based on standardized scores | Cronbach's Alpha |
|---|---|---|---|
| **Sourcing Practices** | **11** | 0.876 | 0.861 |
| Supplier Selection | 4 | 0.856 | 0.843 |
| Base Rationalization | 2 | 0.847 | 0.832 |
| Development Programs | 5 | 0.865 | 0.85 |
| **Contract Management** | **19** | 0.892 | 0.878 |
| Planning | 7 | 0.88 | 0.865 |
| Monitoring & Evaluation | 9 | 0.886 | 0.872 |
| Documentation | 3 | 0.869 | 0.854 |
| **Negotiation** | **10** | 0.864 | 0.849 |
| Terms of Service | 3 | 0.852 | 0.837 |
| Pricing | 1 | 0.861 | 0.846 |
| Styles & Approaches | 6 | 0.87 | 0.855 |
| **Collaborative Capability** | **17** | 0.898 | 0.883 |
| Communication | 8 | 0.886 | 0.871 |
| Interdepartmental Relationships | 8 | 0.894 | 0.879 |
| Feedback | 1 | 0.878 | 0.863 |
| **Performance** | **22** | 0.905 | 0.89 |
| Timeliness | 6 | 0.889 | 0.874 |
| Quality Practices | 2 | 0.897 | 0.882 |
| Customer Service | 8 | 0.884 | 0.869 |
| Cost Reduction | 6 | 0.876 | 0.861 |
| **Overall Instrument** | **79** | | 0.875 |

**Source: (Field survey, 2025)**

The reliability analysis demonstrates that all sub-constructs across the study variables exhibit strong internal consistency, with Cronbach's alpha values exceeding the recommended threshold of 0.70. For sourcing practices, sub-constructs such as supplier selection had a value of (r=0.856), base rationalization had a value of (r=0.847), and development programs had a value of (r=0.865) and an overall value of (r=0.876) which showed high reliability, reflecting that the instrument consistently captures the key aspects of sourcing. Similarly, contract management sub-constructs, including planning had a value of (r=0.88), monitoring and evaluation had a value of (r=0.886), and documentation had a value of (r=0.869), with an overall value of (r=0.892) which indicated stable and dependable measurement of this variable.

Negotiation practices and collaborative capability also show excellent reliability. Negotiation practices, sub-constructs such as terms of service had a value of (r=0.852), pricing had a value of (r=0.861), styles & approaches had a value of (r=0.87), with an overall of value (r=0.864). On the other hand, collaborative capability sub- constructs such as communication had a value of (r=0.886), interdepartmental relationships had a value of (r=0.894), and feedback had a value of (r=0.878) with an overall value of (r=0.898) consistently reflected the intended constructs. The performance variable demonstrated the highest reliability among all, with sub-constructs, including timeliness had a value of (r=0.889), quality practices had a value of (r=0.897), customer service had a value of (0.884), and cost reduction had a value of (r=0.876), with an overall value of (r=0.905), providing a solid measure of procurement outcomes. These high values underscore the robustness of the survey instrument in capturing multi-dimensional aspects of procurement and performance.

Overall, the entire instrument's Cronbach's alpha confirmed that the tool is reliable for the study context, ensuring the consistency of measurement across all variables. This level of internal consistency strengthens the credibility of the research findings, as it minimizes the risk of measurement error and affirms that respondents interpreted and responded to the survey items consistently. Consequently, the data derived from this instrument was confidently used for further statistical analysis, such as regression, moderation, and triangulation with theoretical and empirical insights.

### 3.7.2 Instruments Validity Tests

Validity tests in research methodology play a key role in upholding the integrity and robustness of the study by ensuring that the measurement instruments accurately capture the constructs they aim to assess. These tests serve as a means of scrutinizing the measurement instruments to ascertain their effectiveness in measuring the intended constructs (Mohamad, Sulaiman, Sern & Salleh, 2015). By validating the measurement tools, researchers can instill confidence in the reliability and accuracy of the data collected, ultimately enhancing the credibility and trustworthiness of the research findings (Bourmans, 2005). Without rigorous validity testing, there is a risk of measurement error and bias, which could compromise the validity of the study's conclusions (Taherdoost, 2016). Through validity testing, researchers can evaluate the extent to which the measurement tools align with the theoretical concepts and constructs under

investigation, providing assurance that the data collected accurately reflect the phenomena of interest. Validity testing encompasses various dimensions, each tailored to assess different aspects of the measurement instruments. From validities (content, criterion, construct), these tests offer ample evaluation of the measurement tools' ability to estimate tests what they purport to estimate (Mohamad *et al*., 2015; Bourmans, 2005). Validity tests helps researchers identify and address any potential sources of error or bias, ensuring the vigor and trustworthiness of the findings of the study.

The first validity test that was done in this study is content validity. It pertains to the level of which the items included in the measurement instrument represent the entire content domain of the construct being measured (Taherdoost, 2016). In other words, content validity ensures that the item pools sufficiently represent all the features of the construct under investigation. Input from subject matter experts from Business and Economics faculty was utilized to validate the content of the measurement instrument. The experts assessed whether the items adequately cover the content domain of interest and represent the full range of concepts and constructs under investigation (Almanasreh, Moles, & Chen, 2019). The extent of agreement among experts concerning the relevance and appropriateness of the items was then integrated to determine the content validity of the measurement tool.

The study established content validity through expert evaluation of the measurement instrument prior to data collection. Subject matter experts from the Faculty of Business and Economics reviewed the questionnaire to assess the relevance, clarity and comprehensiveness of the items in capturing the constructs under investigation i.e. strategic procurement practices (sourcing practices, contract management practices, negotiation practices) as well as collaborative capability, and performance. For instance, the experts advised that strategic procurement practice elements are often broad in context, therefore the researcher could not study all them. Therefore, initially conceptualized practices (risk management, supply chain multidisciplinary teams, Supply development and relationship management, stock control and inventory management) were discarded from the measuring instrument. Furthermore, the researcher had previously indicated only 5 item pools per construct.

The experts advised that this were highly insufficiently and there was need to raise the item pools to adequately capture aspects of constructs in question. As such, the item pools were therefore

increased to at least 10, implying that the measuring instrument encompassed a total of 58 item pools. In ascertaining content validity, the experts also noted that the researcher had adopted a 7 point Likert measurement scale encompassing (1= Strongly Disagree, SD; 2=Disagree, D; 3=Somewhat Disagree, SWD; N; 4=Neither Agree nor Disagree, NDNA; 5=Somewhat Agree, SWA; 6=Agree, A; 7=Strongly Agree, SA) would result into many cognitive load on the part of respondents and therefore make it difficult to differentiate intermediate options like D=Disagree and SWD=Somewhat Disagree or A=Agree and SWA=Somewhat Agree. In this case, the researcher therefore expunged 7 point Likert scale and adopted a more efficient 5 point Likert scale of (1= Strongly Disagree, SD; 2=Disagree, D; 3=Neutral, N; 4= Agree, 5=Strongly Agree, SA). The experts confirmed that the items adequately represented the full content domain of each construct and aligned with the study objectives and theoretical foundations. Minor revisions were recommended regarding wording, sequencing, and elimination of redundant items to enhance clarity and precision. The high level of agreement among the experts regarding the appropriateness and coverage of the items affirmed that the instrument possessed satisfactory content validity, indicating that it sufficiently captured all key dimensions of the constructs under investigation.

The second type of validity that was ascertained was construct validity. This type of validity can be said to the degree to which a measurement instrument accurately assesses the theoretical construct or concept it is intended to measure or as known in theory (Taherdoost, 2016). Construct validity assesses whether the research instrument effectively estimates the underlying theoretical construct it claims to assess. Construct validity is crucial in research because it ensures that the measurements obtained from the instrument accurately represent the concepts or constructs under investigation. Many techniques for ascertaining construct validity exist (Smith, 2005; Strauss & Smith, 2009). For instance, Field (2009) espouse that researchers may adopt Exploratory Factor Analysis (EFA) to establish validity of research instruments where the sample size is at least 100. Stapleton (1997) agrees that factor analysis is made up of a jinx of correlational analyses designed to assess relationships in variables and ‘is intimately involved with the issue of instrument construct validation’ (Nunnaly, 1978). Given that the current study pilot sample was 11, ascertaining construct validity through factor analysis could not surface, as this was below 100 as suggested in (Field, 2009; Strauss & Smith, 2009)

Baig, Violato & Crutcher (2010) also say that researchers may adopt Multitrait Multimethod Matrix (MMM) by observing that monotrait heteromethod i.e. validity diagonals are high and that heterotrait blocks are low as compared to monotraits in construct validation of instruments. However, Campbell & Fiske (1959) warn that many researchers often use confirmatory factor analysis (CFA) of visual inspection models when operationalizing the MMM method and this may require samples of at least 100 respondents. In addition, this method is complex especially given that it requires multiple measures and when variances skew results. Therefore, this justification rendered adoption use of the MMM method unsustainable. In assessing, construct validity, Taherdoost (2016) notes that researchers may adopt and use correlations. This method is often simplistic and involves observing whether there exist correlations among conceptualized variables. Therefore, in order to establish construct validity of the measuring instrument, the researcher employed Pearson's r, which established correlations among construed variables, i.e. whether variables have correlations to measure theoretically, what they ought to measure. Construct validity in essence assesses both convergent and discriminant validities. Convergent validity is ascertained when measures correlate strongly with a value ($r>0.65$) while discriminant validity is ascertained when measures do not correlate with measures of unrelated concepts with a value of ($r<0.20$), or the r-value must be lower than the r-value of convergent validity (Smith, 2005; Strauss & Smith 2009; Taherdoost (2016). Chin, & Yao, (2024) intimates that convergent validity is the extent to which two scores or elements of a construct which ought to be correlated are indeed correlated (high correlation among similar factors), On the other hand, Taherdoost (2016) further writes that discriminant validity is the degree to which two scores or measures from two constructs are different and there is no correlation (no or little correlation between the factors). The table 3.3 shows construct validity results for convergent validity.

**Table 3. 5: Factor correlation within constructs for convergent validity of item variables**

| Variable | Sub-Construct Item Cluster | Item Pool No. | Average Inter-Item Correlation (r) | |
|---|---|---|---|---|
| Sourcing | Supplier Selection Items | 9—12 | 0.672 | |
| | Base Rationalization Items | 13—14 | 0.701 | |
| | Development Programs Items | 15—19 | 0.688 | |
| | **Overall Sourcing Construct** | | | 0.687 |
| Negotiation | Terms of Service Items | 20-21 | 0.659 | |
| | Pricing Terms | 22 | 0.641 | |
| | Styles & Approaches Items | 23—28 | 0.676 | |
| | **Overall Negotiation Construct** | | | 0.659 |
| Contract Management | Planning Items | 30—36 | 0.694 | |
| | Monitoring & Evaluation Items | 31—39 | 0.712 | |
| | Documentation Items | 33—35 | 0.668 | |
| | **Overall Contract Management Construct** | | | 0.691 |
| Collaborative Capability | Communication Items | 40—47 | 0.703 | |
| | Interdepartmental Relationships Items | 41—48 | 0.721 | |
| | Feedback Item | 43—43 | 0.688 | |
| | **Overall Collaborative Capability Construct** | | | 0.704 |
| Performance | Timeliness Items | 49—54 | 0.732 | |
| | Quality Practices Items | 55—56 | 0.715 | |
| | Customer Service Items | 51—58 | 0.684 | |
| | Cost Reduction Items | 52—57 | 0.701 | |
| **Overall Performance Construct** | | | | 0.708 |

**Source: (Field survey, 2025)**

From results in the Table 3.3 and considering sourcing practices, the convergent validity results show strong internal correlations in supplier selection, base rationalization, and development program items. Supplier selection items had a correlation index of (r=0.672), supplier base rationalization had a value of (r=0.701) while development program items had a value of (r=0.688). Generally, the average inter-item correlations for sourcing practices was (r=0.687),

exceeding the r-value of 0.65 as initially suggested in (Strauss & Smith, 2009). This confirms that the items intended to measure sourcing are conceptually aligned and reflect the same underlying construct. For negotiation practices, the results demonstrate adequate convergent validity, with strong correlations among terms of service which had a value of (r=0.659), pricing had a value of (r=0.641), and negotiation styles had a value of (r=0.676). The overall average for negotiation practices was (r=0.659). The inter-item correlations above 0.65 indicate that the instrument effectively captures the multidimensional nature of negotiation practices in the wider Supply Chain Management spectrum.

The table 3.3 results further show that contract management practices show strong convergent validity, particularly within monitoring and evaluation items which had a value of (r=0.712), recording the highest within-construct correlation. Planning practices had a value of (r=0.694) and documentation items had a value of (r=0.668), also demonstrating consistent internal relationships. The overall value for contract management practices was (r=0.691) confirming that the measurement instrument accurately reflects the theoretical construct of contract management. Collaborative capability also demonstrates a strong convergent validity, with communication practices having a value of (r=0.703), interdepartmental relationship items had a value of (r=0.721) and feedback had a value of (r=0.688). The overall value of collaborative capability was (r=0.704) which show high internal consistency. This confirms that the items collectively measure the organization's ability to share information, maintain relationships, and provide feedback effectively. Performance exhibits the strongest convergent validity among all constructs, particularly within timeliness had a value of (r=0.732), quality practice had a value of (r=0.715). The high inter-item correlations confirm that the instrument effectively captures procurement performance dimensions, including cost reduction ad a value of (r=0.701) and customer service had a value of (r=0.684), with an overall value of (r=0.708). Therefore, the results confirmed that convergent validity of the item pools in the measuring instrument was ascertained.

**Table 3. 6: Factor correlations between constructs for discriminant validity of item variables**

| Variable | Sourcing practices | Negotiation practices | Contract Mgmt. | Collaborative Capability | Performance |
|---|---|---|---|---|---|
| Sourcing | 1 | 0.512 | 0.548 | 0.566 | 0.602 |
| Negotiation | 0.512 | 1 | 0.534 | 0.571 | 0.589 |
| Contract Management | 0.548 | 0.534 | 1 | 0.593 | 0.617 |
| Collaborative Capability | 0.566 | 0.571 | 0.593 | 1 | 0.642 |
| Performance | 0.602 | 0.589 | 0.617 | 0.642 | 1 |

**Source: (Field survey, 2025)**

The results in figure 3.4 indicates that regarding discriminant validity, sourcing practices demonstrates moderate correlations with other constructs (ranging from 0.512 to 0.602). Specifically, sourcing practices and negotiation practices had a correlation index of (r=0.512), with contract management practices (r=0.548), with collaborative capability (r=0.566) and with performance (r=0.602). From these results, it is clear that all correlations between constructors were below the 0.65 threshold. This indicated that while sourcing is related to negotiation, contract management, collaborative capability and performance, it remains empirically distinct. Therefore, sourcing practices exhibit satisfactory construct validity as discriminant validity was confirmed (Chin, & Yao, 2024).

For negotiation practices, the results indicate moderate but not excessive correlations with other variables. Specifically, the results show that negotiation practices correlates with contract management practices (r=0.534), with collaborative capability (r=0.571) and with performance (r=0.589). This suggests that negotiation is theoretically related to sourcing and contract management practices, but remains a separate strategic procurement practice. Overall, the correlations for negotiation practices and other strategic management practices range between (r=0.512 - r=0.589) all below the 0.65, indicating that the discriminant validity for negotiation practices was ascertained (Westen & Rosenthal, 2003). The results for contract management practices intimate that correlations with collaborative capability was (r=0.593) and with performance (r=0.617) as other constructs remain moderate, with no coefficient approaching multi collinearity levels. These findings confirm that contract management is empirically

distinguishable while still conceptually connected to other strategic procurement practices. The table 3.4 results additionally show that discriminant validity results indicate moderate correlations between collaborative capability practices and performance, with the highest being (r=0.642). This suggests that collaborative capability plays a closely related but distinct association with performance. These results indicate moderate correlations with strategic procurement practices and collaborative capability, demonstrating that performance is influenced by these variables but remains conceptually independent. Overall, the construct validity results confirm that the measurement instrument accurately operationalizes performance as a distinct outcome variable. Overall, both convergent and discriminant validity requirements were satisfied as conditioned in the works of (Taherdoost, 2016; Field, 2009; Strauss & Smith, 2009). The Pearson correlation analysis confirms that items measuring the same constructs are strongly related, while constructs measuring different theoretical concepts remain sufficiently distinct.

### 3.8 Data Analysis

In this study, both descriptive and inferential statistical methods was used to examine the relationships between strategic procurement practices, collaborative capability, and organizational performance in independent offices and commissions in Kenya. Descriptive analysis was summarized and presented the data collected from survey participants in a clear and informative way (Taherdoost, 2022). This included using descriptive statistics like frequencies, percentages, means, and standard deviations to describe the sample's characteristics (Sallis, Gripsrud, Olsson, & Silkoset, 2021), including demographic data like gender, age, position within the organization, and highest level of education. Descriptive statistics also summarized responses to Likert-scale questions by calculating mean scores and standard deviations for each variable related to strategic practices, collaborative capability, and performance. This analysis offered insights into the distribution and central tendencies of the data, helping to identify trends and patterns within the sample.

Inferential analysis involved statistical tests to explore investigate the links between the variables of interest and test the study's hypotheses. Correlation analysis was utilized to determine the strength and direction of the links between strategic procurement practices, collaborative capabilities, and organizational success. Pearson's product moment correlation coefficient was used to assess the linear relationship between two continuous variables, with values ranging from

-1 to +1. A coefficient near +1 indicated a strong positive correlation, while a value near -1 showed a strong negative correlation, and a value near 0 indicated no linear correlation. As noted by Senthilnathan (2019), correlations with coefficients between 0.1 and 0.3 are considered weak, between 0.3 and 0.5 are moderate, and above 0.5 are strong, with negative coefficients indicating inverse relationships. The p-value was used to determine statistical significance, with a p-value below 0.05 indicating a significant relationship between the variables.

Regression analysis was used to identify the specific variables that significantly impact organizational performance in constitutional and independent commissions and offices. Linear regression assessed the link between the independent and dependent variables, helping to understand how changes in one variable affect another. In this study, linear regression was used to evaluate the effect of strategic procurement practices such as sourcing, contract management, negotiation, and collaborative capability on organizational performance, controlling for other factors. Multiple regression extended this analysis by examining the simultaneous effect of two or more independent variables on a single dependent variable. This technique is useful when multiple predictors influence the outcome (Keith, 2019). In this context, multiple regression allowed for the analysis of the combined effects of strategic procurement practices and collaborative capability on organizational performance, considering other potential influencing factors.

To analyze Objective 1, which aimed to evaluate sourcing as a strategic procurement practice and whether it has a bearing on the operational performance of independent offices and commissions in Kenya, a multiple regression model was employed. This model assessed whether sourcing practices significantly predicts the performance of these organizations. First, the data collected on sourcing practices and organizational performance was entered into statistical software, such as SPSS or R. Sourcing practices was measured using responses from the questionnaire items related to supplier selection, base rationalization, and development programs. Organizational performance was measured using responses related to timeliness, cost effectiveness, service delivery, quality and customer improvements. The equation is modelled as shown in model (i)

$$\gamma_i = \beta_0 + \beta_1 X_{11i} + \beta_2 X_{12i} + \beta_3 X_{13i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots .. \text{(i)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

where:

$\beta_0$ Constant of the model, the value of γ when $X$ is set at 0.

$\beta_1, \beta_2\ \beta_3$ Are co-efficient of predictors ($X_{11}$-$X_{13}$)

$X_{11}$ Supplier Selection

$X_{12}$ Base Rationalization

$X_{13}$ Supplier Development Progress

Thereafter, a standard linear regression model was then be constructed, with performance as the outcome variable, sourcing practices as predicting variables, bearing mean elements of sourcing practices (supplier selection, base rationalization, supplier development programs) regressed against performance. The model is depicted below:

$$\gamma_i = \beta_0 + \beta_1 X_{1i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (ii)$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Where:

- γ represents the Performance- dependent variable
- $X_1$ is sourcing, the independent variable
- $\beta_0$ the intercept which explains the value of Y (performance) when the sourcing practices predictors are not included in the model.
- $\beta_1$ the coefficient regression, indicating value of change in performance for a one-unit variance in the sourcing practices.
- ε is the error term, representing the variability in performance not explained by variables in the model.

The findings was interpreted by observing the coefficient of regression and their associated probability values. A significant positive coefficient for sourcing would support the alternative

hypothesis ($H_1$) indicating that sourcing significantly affects the performance of constitutional and independent commissions and offices, Kenya. Conversely, a non-significant coefficient would mean that the null hypothesis ($H0_1$) is not rejected, suggesting that sourcing does not significantly impact performance.

For the second objective, the researcher sought to establish effect of contract management as a strategic procurement practice on the operational performance of constitutional and independent commissions and offices and in Kenya. Multiple regression modelling, as well as linear regressions was made to scrutinize collected field data. This analysis aimed to examine whether there exists association between elements of contract management and performance, as hypothesized in $H_{02}$.The linear regression model involved using performance (dependent variable) as well as contract management (independent variable) as the predictor variable. The model was formulated as follows:

$$\gamma_i = \beta_0 + \beta_1 X_{21i} + \beta_2 X_{22i} + \beta_3 X_{23i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(iii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Where,

$\beta_0$ Is the value of $Y$ as a constant of the regression, when $X$ is set at 0.

$\beta_1, \beta_2\ \beta_3$ Are co-efficient of predictors ($X_{21}$-$X_{23}$)

$X_{21}$ Planning

$X_{22}$ Monitoring and Evaluation

$X_{22}$ Documentation

$e$ Epsilon

Thereafter, a standard linear model regression analysis was mounted to ascertain effect of contract management practices on performance, this involving regressing performance against mean elements of contract management practices. The linear regression model involved using performance (dependent variable) as the outcome variable and mean elements of contract management (independent variable) as the predictor variable.

$$\gamma_i = \beta_0 + \beta_2 X_{2i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (iv)$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Where:

- Y represents performance.
- $X_2$ represents Contract Management
- $\beta_0$ is the intercept coefficient, representing the expected performance when contract management is zero.
- $\beta_2$ is the regression quantity, which shows the variance in performance connected with a one-unit change in contract management.
- $\varepsilon$ represents the error term, accounting for unexplained variance in performance.

The regression models approximated the coefficients ($\beta_0$ and $\beta_1$) and the significance of the regression coefficient $\beta_1$ will be assessed using hypothesis testing, specifically evaluating whether it significantly varies from zero (0). Where the coefficient $\beta_1$ is established to be statistically significant (typically indicated by a p-value < 0.05), it would suggest that contract management has a significant influences performance of independent offices and commissions in Kenya. Conversely, if the coefficient were not statistically significant, it would fail to support the hypothesis ($H0_2$) that contract management has a significant effect on performance.

In the third objective, the researcher sought to determine effect of negotiation as a strategic procurement practice on the operational performance of independent offices and commissions in Kenya. This was done using linear regression analysis. In this analysis, negotiation served as a predictor independent construct whereas performance in the organizations was the outcome construct. The multiple regression model was formulated as follows:

$$\gamma_i = \beta_0 + \beta_1 X_{31i} + \beta_2 X_{32i} + \beta_3 X_{33i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (v)$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Where

$\gamma$ The dependent variable which is the outcome caused by $X_3$.

$\beta_0$ Represents the value of $\gamma$ when $X_3$ is 0, the unchanging value in the regression model.

$\beta_1, \beta_2\ \beta_3$ Are co-efficient of predictors ($X_{31}$-$X_{33}$)

$X_{31}$ Terms of Service

$X_{32}$ Pricing

$X_{33}$ Styles & Approaches.

$\varepsilon$ Epsilon

$$\gamma_i = \beta_0 + \beta_3 X_{3i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (vi)$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

In this model:

- Y represents Performance.
- $X_3$ represents Negotiation.
- $\beta_0$ is the intercept term, indicating the expected performance level when negotiation is absent.
- $\beta_3$ is the coefficient for the negotiation variable, representing variance in performance related with a one-unit change in negotiation.
- $\varepsilon$ it depicts the error term which indicates changes in performance that is not explained by negotiation.

To determine the statistical significance of the relationship, hypothesis testing was conducted. Null hypothesis ($H_0$) explained that negotiation does not significantly affect performance, while the alternative hypothesis ($H_1$) posits the opposite. The findings was interpreted based on the significance level ($\alpha$), set at 0.05. If the p-value of negotiation coefficient is less than $\alpha$, the null hypothesis was rejected, indicating a significant effect of negotiation on performance.

In the fourth objective, the researcher ascertained effect of collaborative capability practices on operational performance of Independent offices and commissions in Kenya. Both multiple

regression and simple linear regression were used made to analyse data collected from the field. In analysis, collaborative capability poised as a construct of the moderating variable whereas performance was taken as the dependent variable. Multiple regression model is formulated as follows:

$$\gamma_i = \beta_0 + \beta_1 X_{41i} + \beta_2 X_{42i} + \beta_3 X_{43i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(vii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Where:

$\gamma$ The dependent variable which is the outcome caused by $X_4$.

$\beta_0$ Represents the value of $\gamma$ when $X_4$ is 0, the unchanging value in the regression model.

$\beta_1, \beta_2\ \beta_3$ Are co-efficient of predictors ($X_{41}$-$X_{43}$)

$X4_1$ Communication.

$X4_2$ Interdepartmental relationships.

$X4_3$ Feedback.

$\varepsilon$ Epsilon

$$\gamma i = \beta_0 + \beta_4 X_{4i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(viii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

In this model:

Y represents Performance.

$X4_i$ represents Collaborative capability.

$\beta_0$ is the intercept term, indicating the expected performance level when collaborative capability is absent.

$\beta_4$ is the coefficient for the collaborative capability variable, representing variance in performance related with a one-unit change in collaborative capability.

ε it depicts the error term which indicates changes in performance that is not explained by collaborative capability.

To determine the statistical significance of the relationship, hypothesis testing was conducted. Null hypothesis (H0) explained that collaborative capability does not significantly affect performance, while the alternative hypothesis (H1) posits the opposite. The findings was interpreted based on the significance level (α), set at 0.05. If the p-value of negotiation coefficient is less than α, the null hypothesis was rejected, indicating a significant effect of collaborative capability on performance.

The fifth objective determined whether collaborative capability acts on strategic procurement practices and the operational performance relationship of independent offices and commissions in Kenya through a moderation process. To actualize this, moderated hierarchical regression which entailed assessing the incremental contribution of one or more independent variables to the prediction of a dependent variable after controlling for other variables in a stepwise manner (Hayes& Montoya, 2017). The first step of hierarchical regression (Field, 2005: Baron & Kenny, 1986), 3 step regression with the interaction term determining moderation. In this, strategic procurement practices (predictor) is the independent variable, performance (outcome) was used as the dependent variable and collaborative capability as a moderator construct. The model formulated was as follows:

$Y_i = \beta_0 + \beta_1 X_{1i} + \varepsilon_i$ ……. (ix)

$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_m M_i + \varepsilon_i$

$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_m M_i + \beta_m M_i X_{1i} + \varepsilon i$

**Source: (Field, 2005; Baron and Kenny, 1986; Arnold, 1982; Bhandari & Srivastava, 2025)**

Where:

Regression of performance against strategic procurement practices (mean average measures of strategic procurement practices).

$Y_i$ Firm performance is the variable showing outcome which is the dependent

$\beta_0$ Is the constant of the model

$\beta_1$ Is the regression coefficient or change induced in $Y$ (Firm performance) by $X_{1i.}$

$X_{1i}$ Is the independent variable (Strategic Procurement Practices)

$\beta_m$ The coefficient of the moderator

$M_i$Collaborative capability is the moderator of the relationship between

Strategic procurement practices ($X_{1i}$) and Firm Performance ($Y_i$).

We add the moderator, (Collaborative capability) in the regression model, to observe the change in $R^2$.

$\beta_m M_i X_{1i}$Cross product term-it shows the coefficient term which reveals moderation.

The R-squared value and significance levels are essential for interpreting the results regarding the strategic procurement practices, collaborative capability and organizational performance in the offices and commissions. The R-squared value derived from the hierarchical regression model represents the amount of change in performance accounted for by the predictors, that is strategic procurement practices (sourcing practices, contract management, negotiation) and collaborative capability. An R-squared value that is high shows that the model regression aligns well and therefore fits to the observed data, suggesting that the predictors collectively account for a larger portion of the variability in organizational performance.

The significance levels associated with the interaction terms between strategic procurement practices and collaborative capability determine whether adding collaborative capability as a moderator significantly improves how the regression model estimates results. A significant p-value for these interaction terms indicates that collaborative capability moderates strategic procurement practices and performance of constitution and independent commissions and offices relationship. This implied collaborative capability either enhances or diminishes bearing of strategic procurement practices on organizational performance, depending on its level. Therefore, in order to achieve moderation, the researcher observed the variation value of $R^2$ in the obtained interaction element. A value of the R-square denoted that moderation abounds.

**Table 3.7: Data Analysis Summary**

| Objective | Analytical technique |
|---|---|
| To examine the effect of sourcing as a strategic procurement practice on the performance of independent offices and commissions in Kenya. | A multiple regression model was used to investigate the impact of sourcing on organizational performance. Linear regression was used to determine the impact of sourcing practices on performance. This entailed regressing an average mean measure of performance. The R-squared value was used to measure the quality of fit. The model's significance was determined using Anova and F-tests, with a threshold of $p < 0.05$. |
| To assess the effect of contract management as a strategic procurement practice on the performance of independent offices and commissions in Kenya. | A multiple regression estimation model was used to determine whether contract management has an impact on organizational performance. Linear regression implemented to examine the impact of contract management strategies on performance. This entailed regressing an average mean measure of performance. The R-squared number indicated the goodness of fit. The model's significance was determined using Anova and F-tests, with a threshold of $p < 0.05$ indicating significance. |
| To investigate the effect of negotiation as a strategic procurement practice on the performance of independent offices and commissions in Kenya. | A multiple regression model was used to examine the impact of bargaining on organisational performance. Linear regression was used to determine the impact of negotiation on performance. This entailed regressing an average mean measure of performance. The R-squared number indicated the goodness of fit. The model's significance was determined using Anova and F-tests, with a threshold of $p < 0.05$ indicating significance. |
| To determine the moderating effect of collaborative capability on the relationship between strategic procurement practices and organizational performance in independent offices and commissions in Kenya. | Hierarchical moderated regressions was used to scrutinize data and estimate whether collaborative capability acts on the strategic procurement and performance relationship. Interaction terms were included in the model. Anova and F-test determined the significance of the interaction terms, the significance level was set at $p < 0.05$ to denote significance |

**Source: (Researcher, 2025)**

**Table 3.8: Operationalization of Research Variables**

Edmonds & Gudmestad (2018) explains that variables for a study must be explained as to the best use of research under study for ease of consumption. The table 3.6 presents the operationalization of variables in the current study:

| Variable | Measures | Source |
|---|---|---|
| Sourcing | Supplier selection<br>Base rationalization<br>Development programs | Claussen *et al*., (2020) |
| Contract Management | Planning<br>Monitoring & evaluation<br>Documentation | Brunjes, Abutabenjeh, Anguelov, Dimand & Rodriguez-Plesa, (2023) |
| Negotiation | Terms of service<br>Pricing<br>Styles & approaches | Owino & Juma (2023), Chepng'etich (2022) |
| Collaborative Capability | Communication<br>Interdepartmental relationships<br>Feedback<br>Timeliness | Power (2014)<br>Fawcett, Fawcett, and Swanson (2019) |
| Performance | Service delivery<br>Cost effectiveness<br>Quality & customer improvements | Steiss, 2019 |

**Source: (Researcher, 2024)**

### 3.8.1 Data Presentation

Results of the research study were to be summarized and visually represented using tables, charts, and graphs. These visual aids provided a clear and concise overview of the data, facilitating the understanding of key findings and trends. The presentation designed was to heighten the clarity and accessibility of the research results for interested audience.

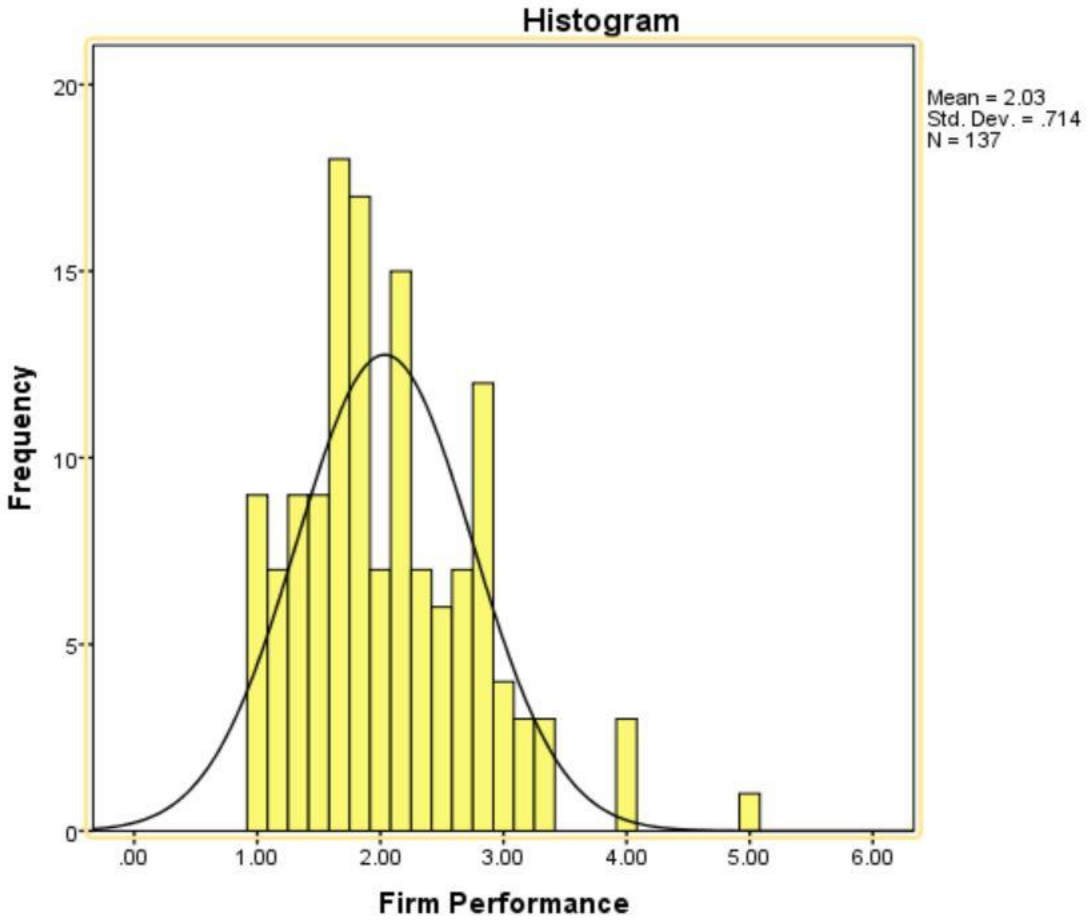
## 3.9 Diagnostic Regression test

This study conducted tests to fulfill principles of regression analysis. Osborne &Waters (2019) submit that ensuring assumptions of the regression model is crucial for ensuring the validity and reliability of its findings. These tests at mitigating biases, enhance the accuracy of parameter estimates, and maintain the integrity of statistical inferences.

### 3.9.1 Normality test

The normality assumption in regression analysis stipulates that the residuals follow a normal distribution pattern, depicted by a bell curve (Osborne & Waters, 2019). This assumption is pivotal as it underpins the reliability of statistical inferences, particularly concerning parameter estimates and hypothesis tests. Detecting deviations from normality is crucial as it can lead to biased estimations and erroneous conclusions. Various tests were used to assess normality of field data as presented below:

#### 3.9.1.1 Histogram with normal curve test of normality for firm performance




**Source: (Researcher, 2025)**

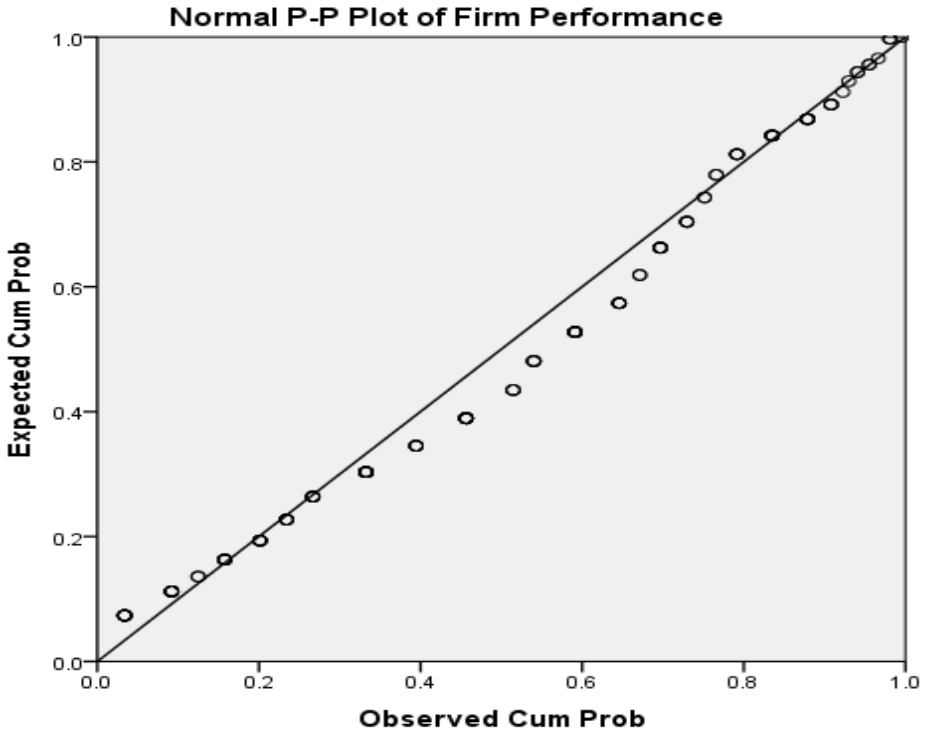
The chart in the figure shows that there is normal probability plot in the histogram that is aligned with the bars in the middle being the longest. Normal probability plot signifies that the data is funnel shaped with kurtosis high picked about the mean. The skewness is likewise normally

distributed around the mean, indicating that data is distributed normally hence meeting the normality assumption thus fitting the multiple regression model.

### 3.9.1.2 Normal Probability plot for Performance

According to Hatem, Zeidan, Goossens and Moreira (2022), the points of a given set of data placed against an assumed normal distribution should form a straight line. Where there is an obvious divergence from the typical distribution of data the conducting regression to estimate relationship among variables may give inaccurate data. The figure 3.1 shows results of normality test using p-p plots:

**Figure 3. 1: P-P plot normality test for firm performance**



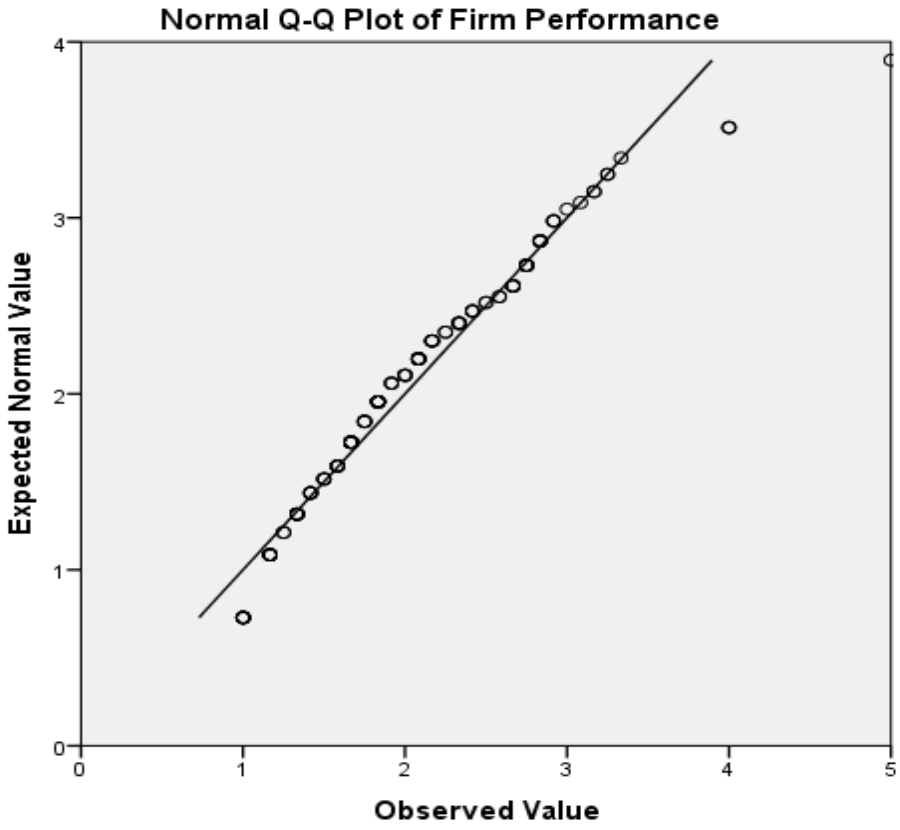

**Source: (Researcher, 2025)**

The p-p plots in Figure 3.1 show that there was a fairly normal distribution, and to some extent, the plotted points in the figure matched the diagonal line drawn in each of the cases, indicating that a straight line was observed by the points of the data, as per Hatem et al. (2022), thus confirming that the data was normally distributed to a significant extent.

### 3.9.1.3 Q-Q Plot for firm performance

In (Habibzadeh, 2024), Quartile-Quartile plots is used in establishing normality, points on the data set falling to 45-degree reference, afterwards the residuals are distributed roughly normally. A divergence from the 45-degree reference line show that dataset distribution is not normal. Consider the normality test results by Q-Q plot in the figure 3.2;

**Figure 3. 2: Q-Q Plot test of normality for firm performance**

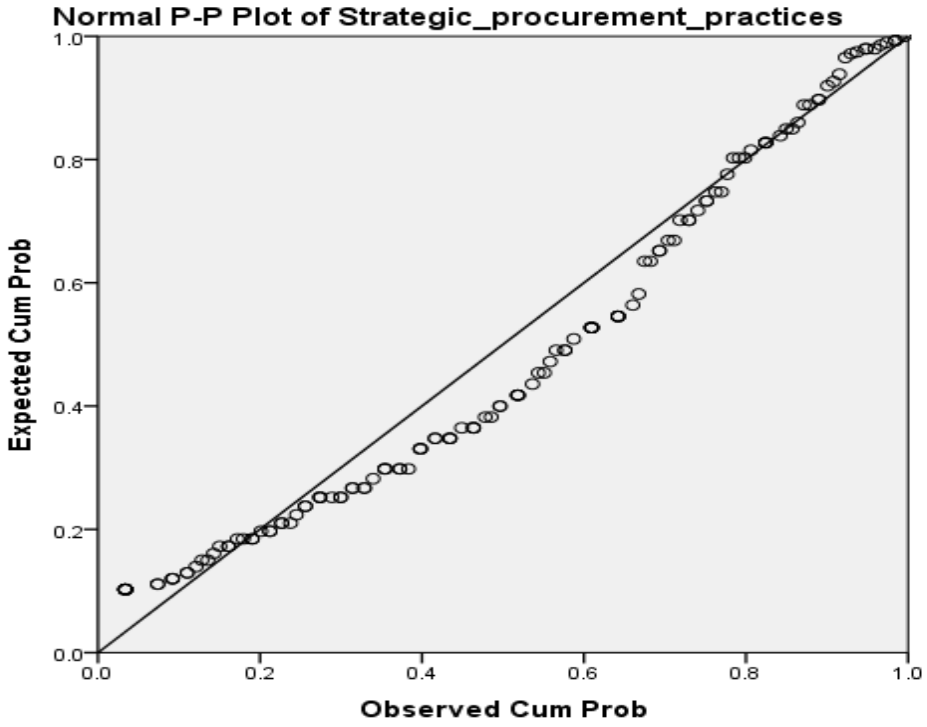



**Source: (Researcher, 2025)**

In the figure 3.2 the Q-Q plot for firm performance demonstrates that the residuals with minimal deviations tend to align at the 45-degree line, mostly at the tail ends, indicating that they are distributed normally.

### 3.9.1.4: P-P plot test of normality for strategic procurement practices

**Figure 3. 3: Normality test by P-P plots for Strategic Procurement practices**

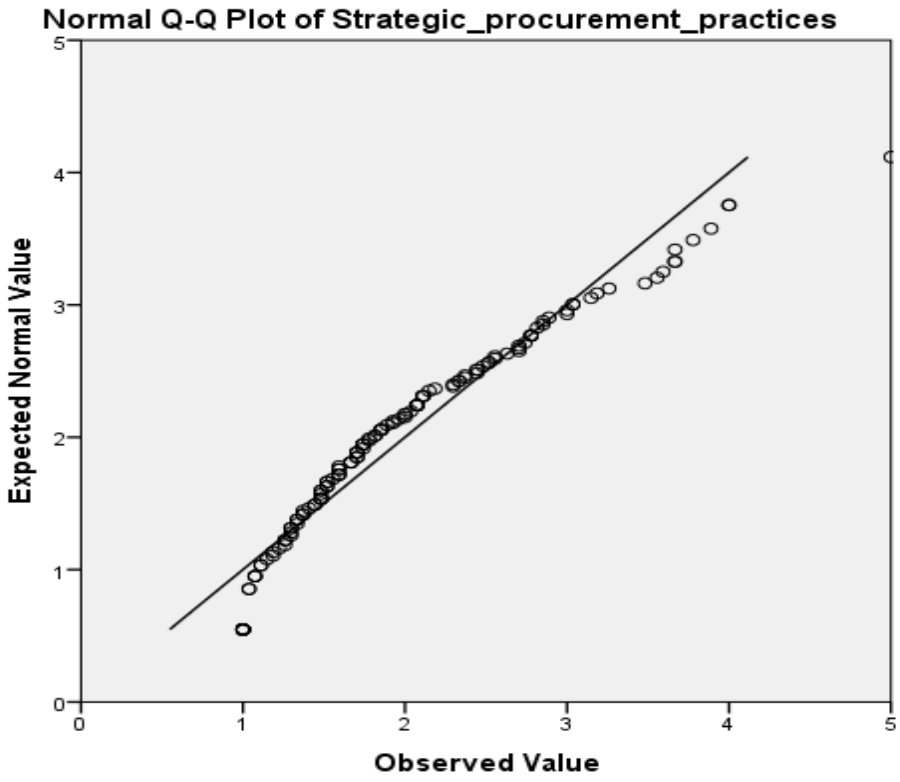



**Source: (Researcher, 2025)**

The P-P graphs in Figure 3.3 show a rather normal distribution. To some extent, the plotted points aligned with the diagonal line in each case, implying that the data points followed a straight line, as observed by (Hatem et al., 2022). This lends support to the notion that the data were generally regularly distributed.

### 3.9.1.5: Q-Q plot test on normality for strategic procurement practices

**Figure 3.4: Normality test by Q-Q Plots for Strategic Procurement Practices**




**Source: (Researcher, 2025)**

Figure 3.4 displays findings of normality test by Q-Q plots for strategic procurement practices. The results denote that with quite minimal deviations, the residual line tends to align at 45-degree line, mostly on the tail ends, which shows an indication of a normal distribution.

### 3.9.1.6 Kolmogorov-Smirnov & Shapiro-Wilk test for Normality

Osborne & Waters (2019) suggests Kolmogorov-Smirnov test, Shapiro and Wilk (1965) test, and Anderson-Darling test can be used to ascertained normality of a set of data. To evaluate this assumption, the study employed the Shapiro-Wilk statistical test. Shapiro &Wilk test (1965) is recommended for smaller sample sizes below 200, and has been established to offer higher statistical power in assessing the normality assumption in regression analysis (Hernandez, 2021). For this study, significance levels typically set at $p < 0.05$ was used. If the p-value exceeds this threshold, indicating non-significance, it suggests that the residuals adhere to a normal

distribution, supporting the normality assumption. Conversely, a p-value below 0.05 indicated a deviation from normality, prompting further examination or potential transformation of the data to meet the assumption's criteria.

**Table 3. 9: Kolmogorov-Smirnov & Shapiro-Wilk test for Normality**

| Variable | Kolmogorov-Smirnov Statistic | df | Sig. | Shapiro-Wilk Statistic | df | Sig. |
|---|---|---|---|---|---|---|
| Sourcing Practices | 0.061 | 137 | 0.2 | 0.987 | 137 | 0.214 |
| Contract Management | 0.058 | 137 | 0.2 | 0.989 | 137 | 0.276 |
| Negotiation | 0.064 | 137 | 0.2 | 0.985 | 137 | 0.173 |
| Collaborative Capability | 0.052 | 137 | 0.2 | 0.991 | 137 | 0.348 |
| Firm Performance | 0.069 | 137 | 0.2 | 0.983 | 137 | 0.109 |

**Source: (Field survey, 2025)**

The normality assumption was assessed using both Kolmogorov–Smirnov and Shapiro–Wilk tests. The Shapiro–Wilk test, which is more appropriate for samples below 200, indicated that all study variables had p-values greater than 0.05. Specifically, sourcing practices ($p = .214$), contract management ($p = .276$), negotiation ($p = .173$), collaborative capability ($p = .348$), and firm performance ($p = .109$) all exceeded the 0.05 threshold. This implied that the null hypothesis of normal distribution could not be rejected. Similarly, the Kolmogorov–Smirnov test produced non-significant results ($p > .05$) for all variables. Therefore, the data were normally distributed, satisfying the normality assumption required for parametric statistical analyses such as correlation and regression.

### 3.9.2 Multi-collinearity test results

The multi-collinearity assumption in regression analysis revolves around the presence of high correlation among predictor variables (Osborne & Waters, 2019). Multi-collinearity can significantly impact the estimation of regression coefficients and the interpretation of results, potentially leading to unreliable conclusions. Multi-collinearity test can be assessed through the following tests; Correlation matrix, Condition index, Eigen value analysis and Variance inflation factors. In order to test for multi collinearity, Variance Inflation Factors (VIF) test for each predictor variable was done. VIF values exceeding a predefined threshold, typically set at 10, indicate multi collinearity issues that warrant further investigation (Oke, Akinkunmi & Etebefia,

2019). In such cases, potential remedial actions such as variable selection or data transformation may be necessary to mitigate the effects of multi collinearity. Ensuring adherence to the multi collinearity assumption is imperative for producing robust and interpretable regression findings, facilitating accurate predictions and supporting informed decision-making.

**Table 3. 10: VIF-Tolerance test for Multi collinearity**

| Model | | Collinearity Statistics | |
|---|---|---|---|
| | | **Tolerance** | **VIF** |
| 1 | Sourcing Practices | .413 | 2.419 |
| | Contract Management | .508 | 1.967 |
| | Negotiation | .350 | 2.856 |
| | Collaborative capability | .583 | 1.716 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The multi-collinearity assumption was tested using Tolerance and Variance Inflation Factor (VIF) values to determine whether the independent variables were highly correlated. The results indicate that all tolerance values were above the recommended minimum threshold of 0.10, with sourcing practices (.413), contract management (.508), negotiation (.350), and collaborative capability (.583). Similarly, the VIF values ranged between 1.716 and 2.856, which are well below the critical threshold of 10 (and even below the more conservative threshold of 5). Although negotiation recorded the highest VIF (2.856), it remains within acceptable limits, suggesting no serious multi-collinearity concerns. Therefore, the findings confirm that the independent variables are sufficiently independent of one another, and the regression model does not suffer from multi-collinearity. This implied that each predictor uniquely contributes to explaining variations in firm performance, validating the suitability of the data for multiple regression analysis.

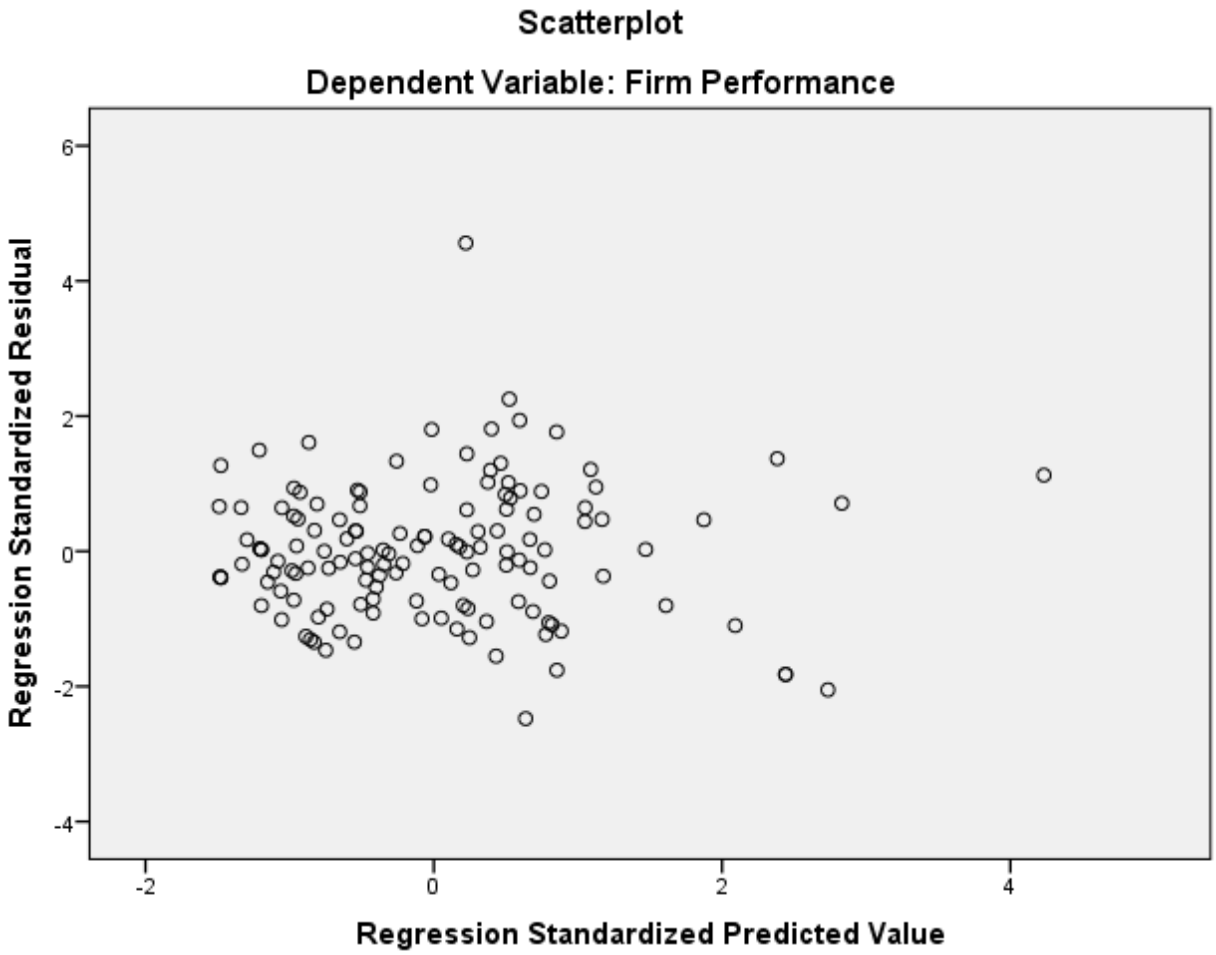
### 3.9.3 Heteroscedasticity and Homoscedasticity Assumptions

The assumptions of heteroscedasticity and homoscedasticity in regression analysis pertain to the variance of residuals across different levels of predictor variables (Osborne & Waters, 2019). Homoscedasticity confers that the change in residuals are constant at all levels of the predictors, whereas heteroscedasticity suggests that the variance may vary. Detecting and addressing heteroscedasticity is crucial as it can affect the precision and reliability of regression estimates, potentially leading to biased inferences and inaccurate predictions. Homoscedasticity tests

assessed through Breusch-Pagan test. Other test such as White test and Goldfield-quandt test as according to (Knaub, 2021) suggested.

To assess these assumptions, visual inspection of scatterplots of residuals against predicted values was conducted, allowing for the identification of patterns indicative of heteroscedasticity (Knaub, 2021).

**Figure 3. 5: Scatter Plots test for Heteroscedasticity**




**Source: (Field survey, 2025)**

Visual inspection of the scatter plot revealed that the residuals were dispersed randomly about the zero line, resulting in a uniform spread with no obvious funnel shape, clustering, or systematic pattern. This implies homoscedasticity, rather than heteroscedasticity. The consistency of residual variance across all levels of expected values indicates that the assumption of equal error variance

was met. Because heteroscedasticity can affect the precision and reliability of regression estimates, potentially leading to biased inferences and incorrect predictions, the absence of such patterns in the scatter plot enhances the validity of the regression results. As a result, the homoscedasticity condition was satisfied, implying that the model estimates are robust and dependable.

Furthermore, the Breusch-Pagan test was used to formally determine whether heteroscedasticity existed in the data. Where the probability value of the Breusch-Pagan test is less than the chosen significance threshold, which is usually 0.05, it indicates that the variance of residuals is not constant across all predictor variables, suggesting the presence of heteroscedasticity in the data. If the p-value is greater than 0.05, it indicates that the residual variance is consistent, which supports the homoscedasticity assumption. These tests, which ensure adherence to the heteroscedasticity and homoscedasticity assumptions, are critical for getting reliable regression findings and drawing appropriate conclusions about the relationships between variables (Abdul-Hameed & Matanmi, 2021).

**Table 3. 11: Breusch-Pagan test for Heteroscedasticity**

| Sample Size (n) | R Square | BP Statistic ($n \times R^2$) | df | Sig. (Chi-square) |
|---|---|---|---|---|
| 137 | 0.033 | 4.521 | 4 | 0.34 |

**Source: (Field survey, 2025)**

The Breusch–Pagan test was conducted to examine whether the variance of the residuals was dependent on the independent variables, which would indicate heteroscedasticity. The auxiliary regression model, where the squared residuals were regressed on sourcing practices, contract management, negotiation, and collaborative capability, produced a low R square value. When multiplied by the sample size to obtain the Breusch–Pagan statistic, the resulting Chi-square value was not statistically significant at the conventional level.

Since the significance value exceeded the threshold of 0.05, the null hypothesis of homoscedasticity could not be rejected. These findings indicate that the variance of the error terms remains constant across levels of the predictor variables. Therefore, there is no statistical evidence of heteroscedasticity in the model. The homoscedasticity assumption was satisfied, confirming that the regression estimates are efficient, unbiased, and reliable for hypothesis testing and inference.

### 3.9.4 Test for Independence of Errors

The assumption of independence of errors in regression analysis refers to the absence of correlation between residuals, ensuring that those of another (Osborne & Waters, 2019), do not influence the errors associated with one observation. This assumption is key to producing reliable regression estimates and valid statistical inferences. In order to estimate independence of errors in the data, Durbin-Watson statistical technique was used. This statistic ranges from 0 to 4, with a value around 2 indicating no serial correlation, while values significantly lower or higher than 2 suggest positive or negative serial correlation, respectively (Kabaila, Farchione, Alhelli & Bragg, 2021).

**Table 3. 12: Durbin Watson Test for Independence of Errors**

**Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .832[a] | 0.692 | 0.683 | 0.40219 | 1.69 |

a. Predictors: (Constant), Collaborative capability, Sourcing Practices, Contract Management, Negotiation

b. Dependent Variable: Firm Performance

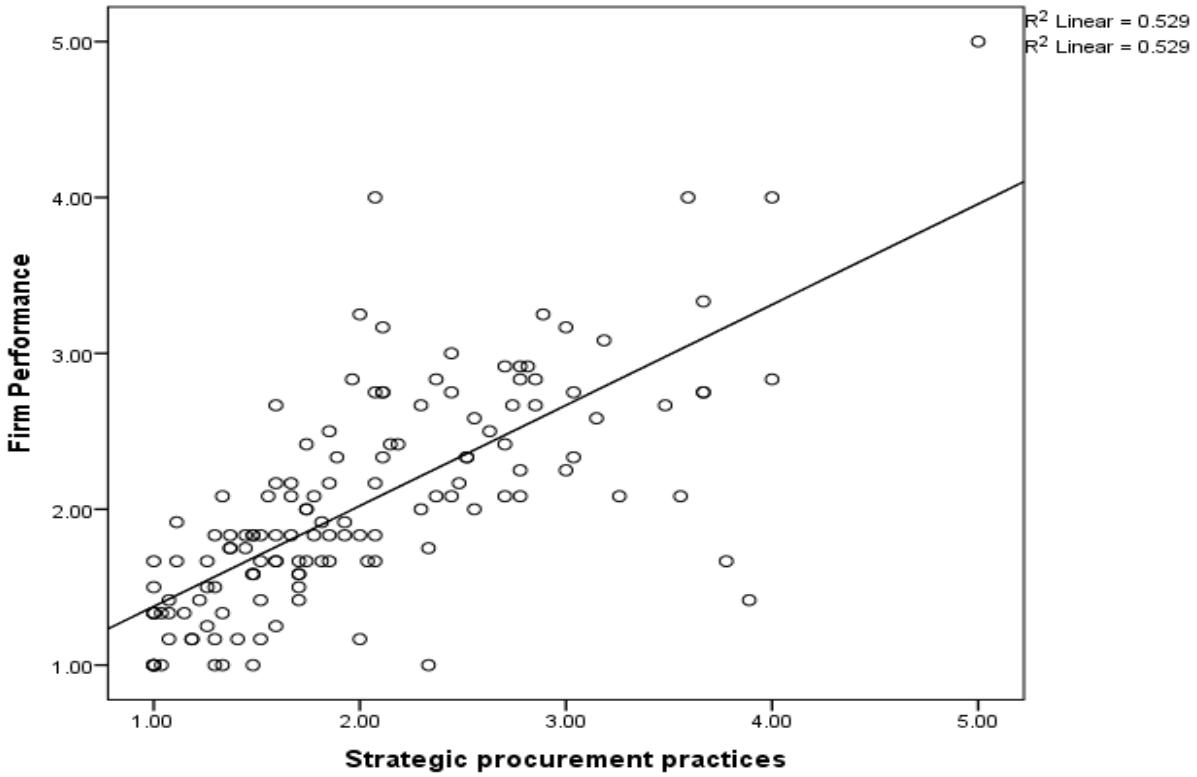
**Source: (Field survey, 2025)**

From the results in Table 3.10, the Durbin–Watson statistic (1.690) falls within the acceptable range of 1.5 to 2.5, indicating that there was no serious autocorrelation among the residuals; hence, the data was fit for regression analysis

### 3.9.5 Linearity

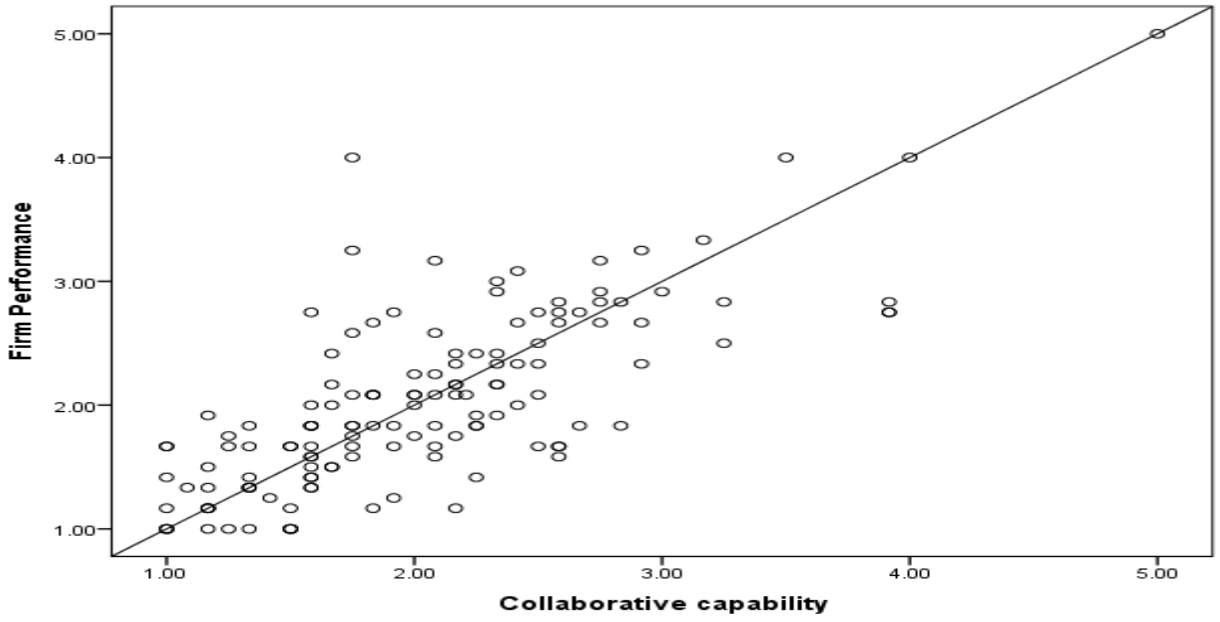
Linearity is based on the assumption that there is a linear relationship between predictor variable and the outcome variable (strategic procurement practices, firm performance and collaborative capability), meaning a changes that occur in one variable causes the changes in the other variable. In this study, a scatter plot was utilized to examine the nature, degree, and direction of linearity within the distribution (Wesonga, 2021).

**Figure 3. 6: Linearity test by Scatter Plots for Strategic Procurement Practices and Firm Performance.**




**Source: (Field survey, 2025)**

**Figure 3. 7: Linearity test by Scatter Plots for Collaborative Capability Practices and Firm Performance.**




**Source: (Field survey, 2025)**

The assumption of linearity was assessed using scatter plots to examine the relationship between the predictor variables (strategic procurement practices and collaborative capability) and the outcome variable (firm performance). The scatter plots revealed a clear linear pattern, with data points distributed along an upward sloping trend, indicating a direct and proportional relationship between the variables. There was no evidence of curved patterns, clustering, or systematic deviations that would suggest a non-linear association. This implied that changes in strategic procurement practices and collaborative capability are associated with corresponding changes in firm performance in a consistent linear manner. Therefore, the linearity assumption underlying multiple regression analysis was satisfied, confirming that the model appropriately captures the linear relationships among the study variables.

### 3.9.6 Test for Goodness of fit

The chi-square test for goodness of fit commonly used when dealing with categorical data, particularly at the nominal and ordinal levels of measurement. This statistical method can be applied in both univariate and bivariate analyses. In its univariate form, which examines a single

variable, it is referred to as the 'goodness of fit' test. When applied to the analysis of two variables together, it is known as the chi-square test of association (Field, 2005; Conway & Hoffcut, 2003).

**Table 3. 13: Test for Goodness of fit**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .832[a] | 0.692 | 0.683 | 0.40219 | 0.692 | 74.104 | 4 | 132 | 0 |

**a. Predictors: (Constant), Collaborative capability, Sourcing Practices, Contract Management, Negotiation**
**b. Dependent Variable: Firm Performance**

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 47.947 | 4 | 11.987 | 74.104 | .000[b] |
| | Residual | 21.352 | 132 | 0.162 | | |
| | Total | 69.299 | 136 | | | |

**a. Dependent Variable: Firm Performance**
**b. Predictors: (Constant), Collaborative capability, Sourcing Practices, Contract Management, Negotiation**

**Source: (Field survey, 2025)**

The goodness-of-fit of the regression model was evaluated using both the ANOVA results and the model summary. The model demonstrates a strong explanatory power, with an R value of 0.832 and an $R^2$ of 0.692, indicating that approximately 69.2% of the variance in firm performance is explained by the combined influence of sourcing practices, contract management, negotiation, and collaborative capability. The ANOVA results further confirm that the overall regression model is statistically significant ($F(4,132) = 74.104$, $p < 0.001$), implying that the predictors collectively provide a good fit to the observed data. The high $R^2$, along with a significant F-test, shows that the regression model adequately captures the relationship between the strategic procurement practices and firm performance, thereby meeting the assumption of goodness-of-fit and supporting the reliability of the model for making inferences and predictions.

### 3.10 Ethical Considerations

In undertaking academic research, ethical considerations are paramount to ensure the protection of participants' rights, maintain academic integrity, and uphold professional standards (Åkerfeldt

& Boistrup, 2021). In this project, ethics was stringently followed in the whole research process. Prior to commencing the study, consultation was sought from Maseno University Graduate School, which will provide an introductory letter endorsing the research endeavor. This step will not only ensure compliance with institutional regulations but also underscore the commitment to conducting responsible research within the academic community.

Before starting data collection, ethical approval was sought from the Maseno University Ethics Review Committee. This process will include submitting a comprehensive research proposal that details the study's goals, methods, potential risks, and benefits. Along with obtaining approval from the Maseno University Ethics Review Committee, permission from the National Commission for Science, Technology, and Innovation (NACOSTI) was secured. The NACOSTI permit is a legal requirement and ensures that the research adheres to ethical and regulatory standards set by national guidelines.

Furthermore, informed consent obtained was from all participants before they participate in the study. Participants will receive full information about the research's purpose, their rights, the procedures, and any potential risks or discomforts. Participation will only proceed after the participants have voluntarily given their informed consent. Additionally, steps taken were to ensure confidentiality and anonymity. First, affirmation that the data was to be specifically used for research purposes only. Second, pseudonyms were used to protect participant identities, and any identifiable information was kept confidential. All collected raw data was securely stored under key and lock, accessible only to authorized individuals, further safeguarding the anonymity of participants and upholding their right to privacy. Databased data was kept under 'password" or 'pin' and authorized only by the principal investigator. Third, the research instrument, the questionnaire, which was to be destroyed at the end of the data research process that is after analysis and after achieving objectives of the data. Furthermore, the data to be collected was not to be exposed to any other third party in a manner that would reveal the researchers' identities. Throughout this research, adherence to ethical principles, APA citation guidelines, and meticulous attention to informed consent and anonymity was paramount.

# CHAPTER FOUR

# RESULTS AND DISCUSSIONS

Chapter four includes data analysis and interpretation in relation to the study's objectives, which were to investigate the effect of strategic procurement practices and collaborative capability on the performance of independent offices and commissions in Kenya. The chapter presents findings on the effects of sourcing, contract management, negotiation practices (Strategic Procurement Practices) and collaborative capability on firm performance, as well as the role of collaborative capability in moderating the relationship between strategic procurement practices and performance. The data were analyzed using regression techniques to determine the nature and strength of the correlations between the variables. Linear regression was used to evaluate the effect of mean strategic procurement procedures on performance, while multiple regression was used to examine the combined impact of sourcing, contract management, negotiating and collaborative capability strategies on performance. Similarly, hierarchical stepwise moderated regressions found that collaborative capabilities practices moderated the effect of strategic procurement procedures on performance while controlling for other important characteristics. The findings were given in tables and complemented by interpretations consistent with the study hypotheses and research objectives.

## 4.1 Response Rate

A total of 140 questionnaires were distributed to respondents in independent offices and commissions in Kenya, and the number successfully returned was recorded to determine the adequacy of data for subsequent analysis. The response rate was computed as a percentage of the returned questionnaires against those that had been administered.

**Table 4. 1: Response rate**

| Category | Frequency | Percentage (%) |
|---|---|---|
| Questionnaires Administered | 140 | 100 |
| Questionnaires Returned | 137 | 97.9 |
| Questionnaires Not Returned | 3 | 2.1 |

**Source: (Field survey, 2025)**

The study had a response rate of 97.9 percent, with 137 of 140 surveys returned and 2.1 percent not returned. According to methodological literature, a response rate of at least 70% is deemed

appropriate for statistical analysis and discovering generalization (Keith, 2019). The high response rate lowered the possibility of non-response bias and increased the reliability of the obtained data. The small proportion of non-responses (3 questionnaires) was not expected to have a major impact on the sample's representativeness, and the returned questionnaires were regarded adequate for regression analysis and hypothesis testing.

### 4.2 Demographic Characteristics of Respondents

This section presents the background characteristics of the respondents who participated in the study. The information summarizes respondents' age, gender, highest academic attainment, position in the organization, duration of employment, registration status, and professional body registration. The analysis was based on the 137 questionnaires that were returned and deemed valid for analysis.

The findings indicate that respondents were aged between 26-30 years 13(9.5%), aged 31-35 years 19(13.9%), having the average proportion. The largest proportion of respondents were aged between 36-40 years 36 (26.3%), followed by those aged 41-45 years 42(30.7%), aged 46-50 years 15(10.9%), aged 51-55 years 9(6.6%) and 56-60 years 3(2.2%) with the lowest proportion, therefore suggesting that most participants were within mid-career stages. Female respondents constituted 119(86.9%) of the sample, while males accounted for 18(13.1%). In terms of academic qualifications, 8(5.8%) held doctorate degrees, 17(12.4%) held master's degree, 66(48.2%) held bachelor's degrees and 46(33.6%) held diplomas, indicating that the majority possessed at least undergraduate-level training. Regarding organizational roles, 86(62.8%) were procurement officers, with 41(29.9%) serving as heads of department and 10(7.3%) as heads of procurement. Most respondents 82 (59.9%) had worked in their organizations for 1-3 years, while 42(30.7 %) had 4-6 years of experience and 13(9.5%) had 7-9 years of working experience. This indicates that majority of the respondents had worked in their firms for up to 3 years.

**Table 4. 2: Demographic Characteristics of Respondents**

| Variable | Category | Frequency | (%) |
|---|---|---|---|
| **Age (Years)** | 26–30 | 13 | 9.5 |
| | 31–35 | 19 | 13.9 |
| | 36–40 | 36 | 26.3 |
| | 41–45 | 42 | 30.7 |
| | 46–50 | 15 | 10.9 |
| | 51–55 | 9 | 6.6 |
| | 56–60 | 3 | 2.2 |
| **Gender** | Female | 119 | 86.9 |
| | Male | 18 | 13.1 |
| **Highest Academic Attainment** | Diploma | 46 | 33.6 |
| | Bachelor's Degree | 66 | 48.2 |
| | Master's Degree | 17 | 12.4 |
| | Doctorate Degree | 8 | 5.8 |
| **Position in Organization** | Procurement Officer | 86 | 62.8 |
| | Head of Department | 41 | 29.9 |
| | Head of Procurement | 10 | 7.3 |
| **Duration of Employment** | 1–3 Years | 82 | 59.9 |
| | 4–6 Years | 42 | 30.7 |
| | 7–9 Years | 13 | 9.5 |
| **Registration Status** | Registered | 96 | 70.1 |
| | Not Registered | 41 | 29.9 |
| **Professional Body Registered** | KISM | 56 | 40.9 |
| | CIPS | 40 | 29.2 |
| | None | 41 | 29.9 |

**Source: (Field survey, 2025)**

The results further showed that 96 (70.1%) of respondents were professionally registered, while 41(29.9%) percent were not. Among those registered, 56 (40.9%) were Kenya Institute of Supplies Management (KISM) members, 40 (29.2%) were affiliated with the Chartered Institute of Purchasing and Supply (CIPS) and 41(29.9%) had not registered with a professional body. The distribution of qualifications, positions, professional registration, and work experience indicated that the respondents possessed relevant academic and professional backgrounds to provide informed responses on strategic procurement practices and organizational performance. The representation across age groups, organizational roles, and professional affiliations provided a

basis for the analysis of procurement practices, collaborative capability and performance within independent offices and commissions in Kenya.

### 4.3. Overview of Operational Performance in independent Offices and Commissions, Kenya

The performance of independent offices and commissions in Kenya was assessed using four key sub-constructs: Timeliness, Quality Practices, Customer Service, and Cost Reduction. The data were acquired using a structured questionnaire. on, where respondents indicated the extent to which each performance aspect was observed in their organization, using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The results are first summarized descriptively, including frequencies and percentages, and then further analyzed using means and standard deviations for each sub-construct to provide a quantitative overview of organizational performance as shown in

**Table 4. 3: Descriptive statistics for operational performance in Independent offices and commissions, Kenya**

| | Performance | SD | D | N | A | SA | M | SD |
|---|---|---|---|---|---|---|---|---|
| 1. | The organization has experienced shortened lead time because of adoption of strategic procurement practices and collaborative capability | 21(15.3) | 30(21.9) | 47(34.3) | 28(20.4) | 11(8) | 2.84 | 1.16 |
| 2. | The organization's delivery time has improved because of adoption of strategic procurement practices and collaborative capability | 23(16.8) | 63(46) | 13(9.5) | 26(19) | 12(8.8) | 2.57 | 1.22 |
| 3. | We offer our clients all the services as promised in the service charter | 28(20.4) | 49(35.8) | 17(12.4) | 24(17.5) | 19(13.9) | 2.69 | 1.35 |
| 4. | Adopting strategic practices and collaborative practices has reduced cost of ordering goods, works and services | 36(26.3) | 56(40.9) | 13(9.5) | 18(13.1) | 14(10.2) | 2.4 | 1.29 |
| 5. | Our clients can access all the services they require from us at any time | 31(22.6) | 72(52.6) | 12(8.8) | 12(8.8) | 10(7.3) | 2.26 | 1.12 |
| 6. | The organization's cycle time has improved because of adoption of strategic procurement practices and collaborative capability | 27(19.7) | 49(35.8) | 18(13.1) | 26(19) | 17(12.4) | 2.69 | 1.32 |
| 7. | Our service delivery is constantly improving in quality practices | 21(15.3) | 51(37.2) | 16(11.7) | 28(20.4) | 21(15.3) | 2.83 | 1.34 |
| 8. | The quality of goods, works and services has improved in the organization because of adopting strategic procurement practices and capability of collaboration | 32(23.4) | 52(38) | 12(8.8) | 26(19) | 15(10.9) | 2.56 | 1.33 |
| 9. | The cost of producing our services has reduced due to adoption of strategic procurement practices and collaborative capability | 29(21.2) | 60(43.8) | 11(8) | 18(13.1) | 19(13.9) | 2.55 | 1.33 |
| 10. | The complaints from customers have reduced due to the use and adoption of strategic procurement practices and collaborative capability. | 35(25.5) | 53(38.7) | 13(9.5) | 25(18.2) | 11(8) | 2.45 | 1.27 |

**Source: (Field survey, 2025)**

*KEY: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree*

The Timeliness sub-construct which measured the speed and efficiency of organizational processes revealed moderate performance levels. Specifically, 21 (15.3%) strongly disagreed, 30 (21.9%) disagreed, and 47 (34.3%) were neutral regarding whether the firms had achieved

shortened lead times due to adoption of strategic procurement practices and collaborative capability. Only 28 (20.4%) agreed, and 11 (8%) strongly agreed with a low mean and standard deviation (M=2.84, SD=1.16). On whether the organizations' delivery time had improved due to adoption of strategic procurement practices and collaborative capability, 23 respondents (16.8%) strongly disagreed, 63 (46%) disagreed, while 13 (9.5%) were neutral, 26 (19%) agreed, and 12 (8.8%) strongly agreed. The mean and standard deviation (M=2.57, SD=1.22) was obtained indicating low ratings. The issue of performance on cycle time improvement due to adoption of strategic practices and collaborative capability showed similar trends, with 27 (19.7%) strongly disagreeing, 49 (35.8%) disagreeing, 18 (13.1%) neutral, 26 (19%) agreeing, and 17 (12.4%) strongly agreeing, with a low mean of (M=2.69, SD=1.32). In general, the mean for the Timeliness sub-construct was 2.70, with a standard deviation of 1.23, indicating that respondents generally perceived only modest improvements in operational speed. The distribution of responses highlights areas where procedural efficiency had been partially realized; suggesting that strategic procurement practices and collaborative capability have contributed to reducing delays, though significant variability exists across organizations.

The Quality Practices sub-construct assessed improvements in service delivery and the quality of goods and works. Responses indicated moderate enhancements, with 21 respondents (15.3%) strongly disagreeing and 51 (37.2%) disagreeing that service delivery quality had improved when the firms adopted strategic procurement practices and collaborative capability. Neutral responses accounted for 16 (11.7%), while 28 (20.4%) agreed, and 21 (15.3%) strongly agreed, with a low mean and standard deviation of (M=2.83, SD1.34). Regarding quality of goods, works, and services, 32 (23.4%) strongly disagreed, 52 (38%) disagreed, 12 (8.8%) were neutral, 26 (19%) agreed, and 15 (10.9%) strongly agreed, having a low mean and standard deviation of (M=2.56, SD=1.33). The mean for Quality Practices was 2.70, with a standard deviation of 1.34, indicating moderate improvement with substantial variation across offices. The results suggest that while strategic procurement practices and collaborative capability have positively influenced the quality of service delivery and outputs, consistent application and institutionalization of these practices may be uneven, requiring targeted interventions to enhance quality uniformly across the organizations.

The Customer Service and Cost Reduction sub-constructs reflected areas with relatively lower performance perceptions. For Customer Service, only 12 respondents (8.8%) agreed that clients could access all required services at any time, while 31 (22.6%) strongly disagreed and 72 (52.6%) disagreed. Complaints reduction showed 35 respondents (25.5%) strongly disagreed, 53 (38.7%) disagreed, 13 (9.5%) were neutral, 25 (18.2%) agreed, and 11 (8%) strongly agreed, having mean of (M=2.26, SD = 1.20), suggesting low to moderate improvements in client service experience. For Cost Reduction, respondents reported modest gains, with a mean of (M=2.48, SD=1.31); 36 (26.3%) strongly disagreed and 56 (40.9%) disagreed that adopting strategic practices and collaborative capability reduced ordering costs, while agreement responses were comparatively lower. These findings indicate that while procurement and collaboration efforts may have contributed to efficiency and cost management, their effects on customer satisfaction and operational cost savings remain limited and inconsistent across the sampled organizations. Overall, the combined performance mean of (M= 2.63, SD = 1.28) reflects moderate organizational performance influenced by strategic procurement practices and collaborative capability.

### 4.3.1 Summary descriptive results for Operational performance

The summary analysis was used to determine the difference in mean rating across the various sub-variables of firm performance. The findings for the sub variables are shown in Table 4.4 below.

**Table 4. 4: Summary descriptive results for Operational Performance**

| Firm performance | Mean | STD |
|---|---|---|
| Timeliness | 2.72 | 1.23 |
| Quality practices | 2.70 | 1.34 |
| Customer service | 2.26 | 1.24 |
| Cost reduction | 2.48 | 1.31 |
| **Overall Mean & Std.** | **2.63** | **1.28** |

**Source: (Field survey, 2025)** *KEY: STD-Standard Deviation*

From the conclusions, it appeared that timeliness item on operational performance had the highest mean (M=2.72 SD=1.23) as equated to quality practices (M=2.70 SD=1.24), followed by cost reduction (M=2.48 SD=1.31) and customer service (M=2.26 SD=1.24). A mean of 3.000 is low (Kaur, Stoltzfus & Yellapu, 2018). Overall, mean of operational performance was low (M=2.63 SD=1.28) indicating that the operational performance in independent offices and commissions in

Kenya is low. The low overall performance mean (M=2.63) recorded across the four dimensions of timeliness, quality practices, cost reduction, and customer service is consistent with concerns raised in public sector performance literature. Timeliness emerged as the strongest dimension, suggesting that independent offices and commissions make modest efforts to meet delivery schedules; however, the score remains below the acceptable midpoint, indicating persistent delays in service provision. Customer service recorded the lowest mean (M=2.26), pointing to inadequacies in stakeholder responsiveness and citizen satisfaction.

These findings mirror the Controller of Budget (2022) report, which indicated that 78% of procurement employees in these institutions failed to meet performance targets. The low means across all sub-constructs signal systemic performance deficits that strategic procurement interventions should urgently address.

### 4.4 Overview of Sourcing Practices

The first objective of the study sought to determine the effect of sourcing practices within independent offices and commissions in Kenya. Before regression modelling, sourcing practices were examined descriptively to provide a preliminary understanding of respondents' perceptions. Sourcing was operationalized through three dimensions: supplier selection, supplier base rationalization, and supplier development programs. Using a five-point Likert scale, respondents were asked to rate their agreement with a series of statements defining their organizations' sourcing methods. The scale ranged from 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree). They were instructed to select the response that best reflected their thoughts or experiences with sourcing processes.

The questionnaire clarified that there were no right or wrong answers and emphasized the importance of honest responses. The data generated from these responses were then coded and analyzed using descriptive statistics prior to the estimation of the regression model. Frequencies and percentages were computed and presented in a Table 4.5 to summarize how respondents rated various statements relating to these dimensions. This preliminary analysis provided an overview of the distribution of responses and established a foundation for subsequent regression analysis.

**Table 4. 5: Descriptive statistics for sourcing practices in Independent Offices and Commissions, Kenya**

| Supplier selection | SD | D | N | A | SA | M | S.Dev |
|---|---|---|---|---|---|---|---|
| The organization carries out prequalification of service providers for various opportunities | 33(24.1) | 35(25.5) | 36(26.3) | 25(18.2) | 8(5.8) | 2.560 | 1.210 |
| The organization selects service providers for every procurement opportunity based on the prequalification database list | 30(21.9) | 27(19.7) | 41(29.9) | 18(13.1) | 21(15.3) | 2.800 | 1.340 |
| The organization visits the premises of suppliers to audit their capability. | 34(24.8) | 32(23.4) | 30(21.9) | 26(19) | 15(10.9) | 2.680 | 1.330 |
| **Mean and Standard deviation** | | | | | | 2.680 | 1.293 |
| **Base rationalization** | | | | | | | |
| The organization appraises its suppliers and decides on the optimal number that should remain in the supplier base | 24(17.5) | 36(26.3) | 36(26.3) | 27(19.7) | 14(10.2) | 2.790 | 1.240 |
| The organization reduces its supply base to few suppliers who provide the organization with maximum value | 36(26.3) | 27(19.7) | 29(21.2) | 27(19.7) | 18(13.1) | 2.740 | 1.380 |
| The organization trains suppliers to develop their skills and knowledge in relevant areas of operation | 31(22.6) | 38(27.7) | 35(25.5) | 20(14.6) | 13(9.5) | 2.610 | 1.250 |
| **Mean and Standard deviation** | | | | | | *2.713* | *1.290* |
| **Development programs** | | | | | | | |
| The organization collaborates with suppliers in joint planning sessions for products and services | 30(21.9) | 33(24.1) | 36(26.3) | 18(13.1) | 20(14.6) | 2.740 | 1.330 |
| The organization has a service level agreement (SLA) for every procurement opportunity with service providers | 33(24.1) | 27(19.7) | 45(32.8) | 20(14.6) | 12(8.8) | 2.640 | 1.240 |
| The organization adheres to SLA for every procurement opportunity with service providers | 24(17.5) | 33(24.1) | 41(29.9) | 24(17.5) | 15(10.9) | 2.800 | 1.240 |
| The organization implements Early Supplier Involvement (ESI) with its service providers in practice | 30(21.9) | 38(27.7) | 33(24.1) | 15(10.9) | 21(15.3) | 2.700 | 1.340 |
| **Mean and Standard deviation** | | | | | | *2.72* | *1.29* |

**Source: (Field survey, 2025)**

*KEY: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree*

The table 4.4 results on supplier selection indicated varied perceptions across the three statements. Regarding prequalification of service providers, 33(24.1%) strongly disagreed and 35(25.5%) disagreed, while 36(26.3%) were neutral, 25(18.2%) agreed, and 8(5.8%) strongly agreed (M = 2.56, SD = 1.21). The distribution showed that 68(49.6%) of respondents expressed disagreement compared to 33(24.0%) who expressed agreement, with over one-quarter remaining neutral. The mean below the midpoint of 3.0 suggested that selection of service providers based on prequalification database was not strongly embedded, while the standard deviation indicated moderate variability in responses. Concerning selection based on the prequalification database, 30(21.9%) strongly disagreed and 27(19.7%) disagreed, whereas 18(13.1%) agreed and 21(15.3%) strongly agreed, with 41(29.9%) neutral (M = 2.80, SD = 1.34). The relatively higher dispersion reflected differing experiences across institutions.

With respect to supplier capability audits through site visits, 34(24.8%) strongly disagreed and 32(23.4%) disagreed, compared to 26(19.0%) who agreed and 15(10.9%) who strongly agreed, while 30(21.9%) were neutral (M = 2.68, SD = 1.33). The pattern showed that 66(48.2%) reported disagreement, exceeding the 41(29.9%) who reported agreement. The variability (M=2.6, SD = 1.33) suggested differences in implementation levels across organizations. The composite mean for supplier selection was calculated at (M = 2.68, SD = 1.29), obtained by averaging the three item means and standard deviations. The overall mean below the neutral midpoint indicated that supplier selection practices were implemented to a limited extent. The moderate standard deviation suggested some inconsistency in how these practices were applied across independent offices and commissions, which provided a basis for further examination in the regression analysis.

Results on supplier base rationalization also reflected mixed perceptions. On appraisal of suppliers and determination of an optimal supplier base, 24(17.5%) strongly disagreed and 36(26.3%) disagreed, while 27(19.7%) agreed and 14(10.2%) strongly agreed, with 36(26.3%) neutral and a mean of (M = 2.79, SD = 1.24). The proportion expressing disagreement (60; 43.8%) slightly exceeded those expressing agreement (41; 29.9%), and the mean suggested moderate application of supplier appraisal practices.

Regarding reduction of the supply base to a few high-value suppliers, 36(26.3%) strongly disagreed and 27(19.7%) disagreed, while 27(19.7%) agreed and 18(13.1%) strongly agreed, with 29(21.2%) neutral, having a mean of (M = 2.74, SD = 1.38). The relatively larger standard

deviation indicated greater dispersion in responses, implying variation in the extent of supply base reduction across organizations. For supplier training initiatives, 31(22.6%) strongly disagreed and 38(27.7%) disagreed, compared to 20(14.6%) who agreed and 13(9.5%) who strongly agreed, while 35(25.5%) were neutral, with a mean of (M = 2.61, SD = 1.25). The composite mean for base rationalization was (M = 2.71, SD = 1.29). The overall mean remained below 3.0, indicating moderate to low emphasis on rationalization practices. The dispersion levels suggested variability in implementation, which was relevant in assessing how supplier base management contributed to sourcing practices.

Findings on development programs showed similar response patterns. For collaboration in joint planning sessions, 30(21.9%) strongly disagreed and 33(24.1%) disagreed, while 18(13.1%) agreed and 20(14.6%) strongly agreed, with 36(26.3%) neutral (M = 2.74, SD = 1.33). The distribution indicated that disagreement (63; 46.0%) outweighed agreement (38; 27.7%), and the variability reflected differences in collaborative engagement levels.

On the existence of service level agreements (SLAs), 33(24.1%) strongly disagreed and 27(19.7%) disagreed, while 20(14.6%) agreed and 12(8.8%) strongly agreed, with 45(32.8%) neutral (M = 2.64, SD = 1.24). Adherence to SLAs recorded 24(17.5%) strongly disagreeing and 33(24.1%) disagreeing, compared to 24(17.5%) agreeing and 15(10.9%) strongly agreeing, with 41(29.9%) neutral (M = 2.80, SD = 1.24). Early Supplier Involvement (ESI) practices showed 30(21.9%) strongly disagreeing and 38(27.7%) disagreeing, while 15(10.9%) agreed and 21(15.3%) strongly agreed, with 33(24.1%) neutral (M = 2.70, SD = 1.34).

The composite mean for development programs was (M = 2.72, SD = 1.29). The overall sourcing mean, computed by averaging the three composite means (2.68, 2.71, and 2.72), was (M = 2.70, SD = 1.29). The overall mean below the midpoint suggested that sourcing practices were moderately implemented across the institutions studied. The variability observed across dimensions indicated differences in adoption levels.

### 4.4.1 Summary descriptive results for sourcing practices

The summary analysis executed to establish the difference mean rating on the various sub variables of sourcing practices. The findings on the sub variables are displayed in Table 4.6 below.

**Table 4. 6: Summary descriptive results for sourcing practices**

| Firm performance | Mean | STD |
|---|---|---|
| Supplier selection | 2.680 | 1.293 |
| Supplier base rationalization | 2.713 | 1.90 |
| Supplier development programs | 2.721 | 1.29 |
| **Overall Mean Sourcing** | **2.705** | **1.494** |

**Source: (Field survey, 2025)**

***KEY: STD-Standard Deviation***

From the findings, there is a high rating on supplier development programs (M=2.721 SD=1.29) among independent offices and commissions. This is trailed by supplier base rationalization (M=2.713 SD=1.29) and lastly supplier selection (M=2.680 SD=1.293). The overall mean on sourcing practices was low (M=2.705 SD=1.494), denoting that there is low implementation and use of sourcing practices in independent offices and commissions, Kenya. The summary descriptive results reveal that all three sourcing practice dimensions fall below the neutral midpoint, underscoring pervasive low adoption of strategic sourcing in Kenya's independent offices and commissions. While supplier development programs registered a marginally higher mean (M=2.721), the marginal differences across dimensions indicate that supplier selection, rationalization, and development are all insufficiently embedded in procurement operations. The results that practicing sourcing and supplier development in Independent offices and Commissions is low and practiced by few firms in consistent with previous literature. For instance, the National Treasury Report (2018), found that only one among sixteen independent offices had substantively implemented strategic procurement directives. Such low adoption levels are particularly concerning given that sourcing is a foundational element of strategic procurement management that directly shapes organizational efficiency, value for money, and service delivery performance.

### 4.4.2 Effect of Sourcing Practices on Performance of Independent Offices and Commissions, Kenya

In order to determine the effect of Sourcing Practices on the performance of Independent Offices and Commissions in Kenya, the study first established correlation between Sourcing Practices and Performance to establish whether their existed association between the two variables. The correlation between sourcing practices and organizational performance was examined using Pearson correlation analysis. The analysis involved 137 respondents and aimed to determine the strength and direction of associations as a preliminary step before regression analysis. Significance

levels were reported at $p < .05$ and $p < .01$ to indicate statistically meaningful relationships. Table 4.4 presents the correlations between performance and the three dimensions of sourcing practices (supplier selection, base rationalization, and development programs).

**Table 4. 7: Correlation analysis of Sourcing Practices and Performance of Independent Offices and Commissions, Kenya**

| | | Performance | Supplier Selection | Base rationalization | Development programs |
|---|---|---|---|---|---|
| Performance | Pearson Correlation | 1 | .307** | .386** | .310** |
| | Sig. (2-tailed) | | .000 | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Supplier Selection | Pearson Correlation | .307** | 1 | .417** | .493** |
| | Sig. (2-tailed) | .000 | | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Base rationalization | Pearson Correlation | .386** | .417** | 1 | .319** |
| | Sig. (2-tailed) | .000 | .000 | | .000 |
| | N | 137 | 137 | 137 | 137 |
| Development programs | Pearson Correlation | .310** | .493** | .319** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| | N | 137 | 137 | 137 | 137 |

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

**Source: (Field survey, 2025)**

As shown in Table 4.7, the results depict that organizational performance in the organizations was positively correlated with Supplier Selection ($r = .307$, $p < .01$), Supplier Base rationalization ($r = .386$, $p < .01$), and Supplier development programs ($r = .310$, $p < .01$). The results indicate that higher levels of adoption use of sourcing practices are associated with improved organizational performance. Among the sourcing dimensions, base rationalization exhibited the strongest correlation with performance ($r = .386$, $p < .01$), suggesting that efforts to optimize the supplier base were more closely linked to performance outcomes compared to supplier selection and development programs. All correlations were statistically significant at the 0.01 level, demonstrating that variations in sourcing practices were meaningfully associated with differences in organizational performance across independent offices and commissions in Kenya.

After establishing correlation between Sourcing Practices and Performance (which were statistically significant and positive), the study then established the effect of sourcing practices on

the performance of Independent offices and Commissions in order to achieve objective one of the study, and further ascertain hypothesis one which was set as:

*$H_{01}$: Sourcing practices has no significant effect on the performance of independent offices and commissions in Kenya.*

To attain this goal, regression analysis (including multiple and standard linear regression) was performed. Table 4.5 presents summary the multiple regression analysis conducted to investigate the impact of sourcing practices on organizational performance in Kenya's Independent Offices and Commissions. The analysis included three predictor variables (supplier selection, base rationalization, and development programs), as well as the dependent variable (firm performance). The data were imported into SPSS and regression analysis techniques were used to estimate the strength, significance and contribution of each predictor. The regression model summary, ANOVA and regression coefficients are used to provide a thorough overview of the overall model fit, statistical significance and the relative influence of each sourcing strategy on performance. The table 4.8 presents regression results.

**Table 4. 8: Model Regression results and ANOVA for Sourcing Practices and Firm Performance**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .442[a] | 0.195 | 0.177 | 0.60796 | 0.195 | 10.751 | 3 | 133 | 0.000 |

a. Predictors: (Constant), Development programs, Base rationalization, Supplier selection

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 11.921 | 3 | 3.974 | 10.751 | .000[b] |
| | Residual | 49.159 | 133 | 0.37 | | |
| | Total | 61.08 | 136 | | | |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Development programs, Base rationalization, Supplier selection

**Source: (Field survey, 2025)**

**Table 4. 9: Model coefficient results for Sourcing Practices and Performance**

**Model Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.247 | 0.147 | | 8.483 | 0.000 |
| | Supplier selection | 0.07 | 0.063 | 0.105 | 1.111 | 0.268 |
| | Base rationalization | 0.224 | 0.067 | 0.289 | 3.343 | 0.001 |
| | Development programs | 0.124 | 0.068 | 0.166 | 1.824 | 0.068 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The model summary indicated that the three predictors jointly explained 19.5% of the variance in organizational performance ($R = .442$, $R^2 = .195$, Adjusted $R^2 = .177$, Std. Error = 0.608). The $R^2$ change was statistically significant $F(3, 133) = 10.751$, $p < .001$), suggesting that sourcing practices collectively contributed to variations in performance. The ANOVA table confirmed that the regression model was significant ($F = 10.751$, $p < .001$), indicating that the combination of supplier selection, base rationalization, and development programs reliably predicted organizational performance.

Examination of the regression coefficients revealed that base rationalization had a significant positive effect on performance ($B = 0.224$, $\beta = .289$, $t = 3.343$, $p = .001$), indicating that improvements in supplier base rationalization were associated with higher performance levels. Development programs showed a positive but marginally non-significant effect ($B = 0.124$, $\beta = .166$, $t = 1.824$, $p = .068$), while supplier selection did not significantly predict performance ($B = 0.070$, $\beta = .105$, $t = 1.111$, $p = .268$). These results suggest that among the sourcing practices, base rationalization was the most influential factor, highlighting the importance of managing the supplier base effectively for performance outcomes, whereas other practices contributed less strongly in the context of independent offices and commissions in Kenya.

The multiple regression model examining the effect of sourcing practices on organizational performance was fitted as follows:

$$\textbf{Performance } (\gamma) = 1.247 + 0.070(\text{SS}) + 0.224(\text{BR}) + 0.124(\text{DP})$$

***KEY: SS- Supplier Selection, BR- Base Rationalization, DP-Development Programs***

In this model, 1.247 represents the intercept, indicating the expected level of organizational performance when all sourcing practice predictors are at zero. The inclusion of supplier selection while holding other practices constant increases firm performance by (B = 0.070) suggested a small positive relationship with performance, though it was not statistically significant (t = 1.111, p = .268). Base rationalization had a positive and statistically significant effect (B = 0.224, t = 3.343, p = .001), indicating that for every one-unit increase in base rationalization practices, firm performance was expected to increase by 0.224 units, holding other variables constant. Development programs also had a positive effect (B = 0.124), but this relationship was marginally non-significant (t = 1.824, p = .068). The model explained 19.5% of the variance in performance ($R^2$ = .195), demonstrating that while other factors may contribute; sourcing practices particularly base rationalization had a measurable influence on organizational performance.

The findings were used to test the study hypothesis regarding the relationship between sourcing practices and performance. The null hypothesis (H0) stated that sourcing practices had no significant effect on organizational performance, whereas the alternative hypothesis (H1) stated that sourcing practices had a significant effect on organizational performance. Based on the regression results, base rationalization was the only dimension of sourcing that had a statistically significant effect (B = 0.224, t = 3.343, p = .001). Supplier selection (B = 0.070, t = 1.111, p = .268) and development programs (B = 0.124, t = 1.824, p = .068) did not show statistically significant effects. These results suggest that not all aspects of sourcing practices contribute equally to performance, with base rationalization being the primary driver in the context of independent offices and commissions in Kenya.

Although supplier selection does not appear as a statistically significant predictor. (B = 0.070, p = .268) in this study, its positive direction is noteworthy and consistent with prevailing empirical literature in other contexts. Nganu and Mwangangi (2018) investigated the impact of procurement methods on the performance of state enterprises in Kenya within the public sector industry, focusing on strategic sourcing practices, procurement planning, supplier relationship managemenr and organizational performance. Similarly, Dede and Theuri (2018) found in their study on the Kenya Bureau of Standards that multiple sourcing and global sourcing strategies positively correlated with procurement performance. The non-significance of supplier selection in the current study may be attributed to the limited institutionalization of systematic prequalification processes

in independent offices and commissions, as corroborated by the descriptive findings, which showed that 49.6% of respondents disagreed with the existence of robust prequalification practices. This suggests that supplier selection practices exist in theory but are inconsistently applied across the institutions, thereby diluting their effect on performance.

Base rationalization became the most statistically significant predictor of performance (B = 0.224, p = .001), underscoring its central role in enhancing organizational outcomes. This finding is corroborated by Ojwang, Muturi, and Alala (2018), who found that single sourcing as a form of base rationalization, significantly and positively improved performance in Kenyan NGOs by reducing costs and enhancing quality. Further alignment is found in Mamayi *et al*. (2018), whose study in France established that organizations that strategically reduce and manage their supplier base experience improved contract execution and procurement efficiency. The positive relationship is theoretically grounded in the Relational View Theory (Dyer & Singh, 1990), which posits that organizations derive competitive advantage by deepening relationships with a select group of strategically aligned suppliers. For independent offices and commissions, rationalizing the supplier base enables procurement officers to focus relational investment, governance resources, and monitoring efforts on fewer, higher-value suppliers in directly translating into performance improvements in timeliness, cost reduction, and quality.

Supplier development programs, while in the positive direction (B = 0.124), fell marginally short of statistical significance (p = .068), suggesting a nascent yet underdeveloped area of sourcing practice in independent offices and commissions. Tesfaye (2019), in a study of MOHA Soft Drinks in Ethiopia, found that supplier development was one of the more impactful components of strategic sourcing on firm performance, alongside communication and procurement planning. In a similar vein, Wagner, Grosse-Ruyken, and Erhun (2018) demonstrated across European and US manufacturers that supplier evaluation, a precursor to formal development programs had positively influenced integration of supplier information, which subsequently improved performance. The borderline significance in the current study may reflect the low adoption of formal supplier development initiatives, such as joint planning sessions and Early Supplier Involvement (ESI), with means ranging from M=2.64 to M=2.80, all below the neutral midpoint. Independent offices and commissions would benefit from formalizing supplier development

frameworks to unlock the potential performance gains suggested by the positive regression coefficient.

In conclusion, the regression analysis demonstrated that sourcing practices collectively influenced organizational performance, with base rationalization emerging as the most significant predictor. The model equation and coefficient interpretations highlighted the relative contribution of each sourcing dimension, providing empirical evidence that optimizing the supplier base is crucial for enhancing performance outcomes. These findings provide a foundation for targeted interventions to improve sourcing strategies, particularly through systematic supplier base management, while other sourcing practices may require further refinement or complementary measures to achieve measurable performance gains.

### 4.4.3 Summary model results on effect of Sourcing Practices on Performance of Independent offices and Commissions in Kenya

From the results in Table 4.9, it can be noted that while majority of sourcing practice elements had statistically some (supplier selection, development programs) have a positive but insignificant effect on the performance of Kenya's independent offices and commissions. In order to examine the overall effect of sourcing practices and examine whether indeed sourcing practices had significant effect on performance, the researcher carried out a simple linear regression analysis, pitting performance against mean elements of sourcing practices. This presents the model summary, ANOVA, and coefficients for the analysis. Data were analyzed using SPSS, with sourcing practices as the single independent variable and organizational performance as the dependent variable. The model allowed an assessment of the combined effect of all sourcing dimensions on performance prior to disaggregating specific practices in multiple regression analysis. Results are presented in terms of model fit, statistical significance, and regression coefficients to provide a comprehensive view of the relationship.

**Table 4. 10: Summary model results on effect of Sourcing practices on Performance of Independent Offices and Commissions, Kenya**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .426[a] | 0.181 | 0.175 | 0.60858 | 0.181 | 29.914 | 1 | 135 | 0 |

a. Predictors: (Constant), Sourcing Practices

**ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 11.08 | 1 | 11.08 | 29.914 | .000[b] |
| | Residual | 50.001 | 135 | 0.37 | | |
| | Total | 61.08 | 136 | | | |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Sourcing Practices

**Source: (Field survey, 2025)**

The model summary indicated that sourcing practices explained 18.1% of the variance in organizational performance ($R = .426$, $R^2 = .181$, Adjusted $R^2 = .175$, Std. Error = 0.609). The $R^2$ change was significant $F(1, 135) = 29.914$, $p < .001$), suggesting that overall sourcing practices were a meaningful predictor of performance. The ANOVA table revealed that the model was statistically significant ($F = 29.914$, $p < .001$), indicating that the regression model provided a reliable fit for the data. The regression equation for the model was specified as:

$$\textbf{Performance } (\gamma) = 1.284 + 0.397(\textbf{Sourcing Practices})$$

In this equation, 1.284 represents the intercept, indicating the expected performance level when sourcing practices are zero. The coefficient for sourcing practices ($B = 0.397$, $\beta = .426$, $t = 5.438$, $p < .001$) indicated a positive and statistically significant relationship. The standardized beta ($\beta = .426$) further confirmed that sourcing practices had a moderate effect on performance outcomes, meaning that a one-unit increase in overall sourcing practices was associated with an increase of 0.426 units in organizational performance.

**Table 4. 11: Summary Model Coefficient results on effect of Sourcing practices on Performance of Independent Offices and Commissions, Kenya**

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.284 | 0.144 | | 8.917 | 0 |
| | Mean Sourcing Practices | 0.397 | 0.073 | 0.426 | 5.438 | 0 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The findings from the study reveal that sourcing practices significantly influence the performance of independent offices and commissions in Kenya. Specifically, base rationalization emerged as a key driver of performance, while supplier selection and development programs contributed positively, albeit with lesser significance. These results resonate with the Relational View Theory, which emphasizes the strategic value of inter-organizational relationships and resource integration with suppliers. By optimizing supplier bases and cultivating strong supplier relationships, organizations can leverage unique capabilities that enhance efficiency and performance outcomes. Similarly, the Social Exchange Theory supports the notion that mutually beneficial interactions between organizations and suppliers foster trust, commitment, and long-term collaboration, which underpin improved operational performance.

Comparing these findings with empirical literature, the results align with studies such as Khan and Pillania (2008) and Wagner *et al*. (2018), which demonstrated that strategic sourcing and supplier evaluation positively influence firm performance and operational flexibility. In Africa, Tesfaye (2019) and Kenyan studies (Soita & Osoro, 2023; Kinuthia & Amuhaya, 2023) similarly highlight that sourcing strategies particularly those emphasizing supplier selection, development, and multiple sourcing approaches contribute to organizational efficiency, quality, and cost reduction. However, unlike these prior studies that focused on manufacturing or cooperative sectors, the current study extends the evidence to the public sector, specifically independent offices and commissions, incorporating collaborative capability as a moderating factor, which amplifies the effect of sourcing practices on performance.

A broader triangulation of empirical evidence presents a nuanced picture of the sourcing-performance relationship. Three studies corroborate the current findings, while two present contrasting evidence, enriching the scholarly debate. First, Soita and Osoro (2023), in a study conducted at Total Energies Kenya Limited using Transaction Cost Theory, found a significant and positive association between sourcing strategies and performance, noting that effective sourcing contributed to cost reductions and quality improvements. This directly parallels the current findings, which show that sourcing practices collectively explained 18.1% of the variance in performance ($R^2 = .181$), affirming sourcing as a meaningful performance driver in the Kenyan public sector context.

Second, Kinuthia and Amuhaya (2023) demonstrated at Murang'a Co-operative Creameries that multiple sourcing strategies, including parallel and delegated sourcing, significantly influenced firm performance. The use of differentiated supplier bases resonates with the current study's finding that base rationalization was the most significant predictor ($B=0.224$, $p=.001$), as both studies confirm that strategic configuration of the supplier base determines performance outcomes. Third, Dede and Theuri (2018), studying the Kenya Bureau of Standards using Stakeholder Theory and Relational Exchange Theory, found that multiple sourcing, green sourcing, and global sourcing positively correlated with procurement performance. While their context is a different public institution, the positive direction of all sourcing dimensions aligns with the current study, which similarly recorded positive regression coefficients across all three sourcing constructs.

Conversely, Angila (2017) examined sourcing strategies and the performance of South Nyanza Sugar Co. Ltd. and found that sourcing strategies explained only a weak variance in performance ($R^2 = .023$), with most strategies, including partnership sourcing which failed to achieve statistical significance. This contrasts markedly with the current study's stronger explanatory power ($R^2 = .181$) and the significance of base rationalization. The discrepancy may be attributed to contextual and sectoral differences: the manufacturing sector, with competitive market pressures, may respond differently to sourcing strategies than regulatory public institutions.

Additionally, Ojwang, Muturi, and Alala (2018) found in their study of NGOs in Kisumu that single sourcing was the most effective strategy, which stands in partial contrast to the current study's emphasis on rationalization over individual sourcing modes. Their finding that single sourcing reduces costs and enhances quality suggests that concentrated supplier relationships are

beneficial yet the limitation of focusing on NGOs, which operate under donor-driven procurement logic, constrains generalizability to independent offices and commissions operating under PPRA regulatory frameworks. Collectively, these divergences point to the significance of institutional context, regulatory environment, and theory choice in shaping sourcing-performance dynamics.

In conclusion, the study corroborates theoretical and empirical evidence that strategic sourcing is a critical determinant of organizational performance. The relational, exchange-based, and collaborative network perspectives collectively explain why sourcing practices, when effectively managed, improve service delivery, cost efficiency, and quality outcomes. The inclusion of collaborative capability further strengthens this relationship, indicating that coordination and joint problem solving between offices and suppliers enhance the impact of sourcing practices. Therefore, the findings validate the hypothesis that sourcing practices, moderated by collaborative capability, positively affect the performance of independent offices and commissions in Kenya, providing both theoretical and practical insights for procurement management in the public sector.

Therefore, based on these results, the null hypothesis (H0) that sourcing practices do not significantly affect organizational performance was rejected in favor of the alternative hypothesis (H1). The findings demonstrated that overall sourcing practices, when considered as a single construct, were significantly associated with performance in independent offices and commissions in Kenya. The results provide empirical support for the importance of adopting comprehensive sourcing strategies to enhance organizational outcomes.

### 4.5 Overview of Contract Management Practices

For the second objective, the researcher sought to establish effect of contract management as a strategic procurement practice on the performance of constitutional and independent commissions and offices and in Kenya. The study assessed three main sub-constructs of contract management: planning, monitoring and evaluation, and documentation. Planning examines how organizations anticipate and prepare for the types of contracts they require, incorporating strategies and innovations to improve efficiency. Monitoring and evaluation focus on the systematic review and improvement of contracts to ensure compliance and achievement of organizational goals. Documentation evaluates the organization's ability to maintain, utilize, and standardize contract records, including post-contract audits and adherence to regulatory frameworks. First, descriptive analysis, entailing means and standard deviations was done and presented from respondents' views

in which respondents were asked to select the appropriate response for each question using a tick (✓) or a mark (X) as relates to the statements on contract management aspects within their organization using the scale (1=Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree).

**Table 4. 12: Descriptive statistics for Contract Management in Independent Offices and Commissions, Kenya**

| | Planning | SD | D | N | A | SA | M | SD |
|---|---|---|---|---|---|---|---|---|
| 1. | It is part of our strategy to plan for what type of contracts we will need during the financial year | 30(21.9) | 30(21.9) | 38(27.7) | 26(19) | 13(9.5) | 2.72 | 1.26 |
| 2. | The organization adopts and uses innovative ways when planning contracts for goods, works and services | 33(24.1) | 33(24.1) | 44(32.1) | 20(14.6) | 7(5.1) | 2.53 | 1.16 |
| 3. | The organization follows and implements recommendations of post contract audits on areas of improvements for future engagements | 38(27.7) | 31(22.6) | 40(29.2) | 16(11.7) | 12(8.8) | 2.51 | 1.26 |
| | **Mean and standard deviation** | | | | | | **2.59** | **1.23** |
| | **Monitoring & evaluation** | | | | | | | |
| 4. | We have a team that engages in regular review of our contracts during the financial year | 37(27) | 36(26.3) | 31(22.6) | 23(16.8) | 10(7.3) | 2.51 | 1.26 |
| 5. | It is important for my organization to check and continuously improve our contracts to meet predetermined goals | 35(25.5) | 27(19.7) | 42(30.7) | 23(16.8) | 10(7.3) | 2.61 | 1.24 |
| 6. | The procurement department uses pre-developed contract documents for our contracts with suppliers time and time again | 24(17.5) | 37(27) | 38(27.7) | 21(15.3) | 17(12.4) | 2.78 | 1.26 |
| | **Mean and standard deviation** | | | | | | **2.63** | **1.25** |
| | **Documentation** | | | | | | | |
| 7. | We store all our contract documents so that we can refer to them in the future | 28(20.4) | 35(25.5) | 35(25.5) | 19(13.9) | 20(14.6) | 2.77 | 1.32 |
| 8. | The organization uses standard tender documents from Public Procurement Regulatory Authority (PPRA) when contracting for goods, works and services | 29(21.2) | 27(19.7) | 43(31.4) | 21(15.3) | 17(12.4) | 2.78 | 1.29 |
| 9. | The organization carries out post contract audit and evaluation as a monitoring tool for services, goods and works procured | 35(25.5) | 35(25.5) | 41(29.9) | 13(9.5) | 13(9.5) | 2.52 | 1.24 |
| 10. | The organization reviews contract performance of service providers | 36(26.3) | 33(24.1) | 30(21.9) | 18(13.1) | 20(14.6) | 2.66 | 1.38 |
| | **Mean and standard deviation** | | | | | | **2.68** | **1.31** |

**Source: (Field survey, 2025)** *KEY: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree*

The planning sub-construct revealed low to moderate engagement in strategic contract planning (M = 2.59, SD = 1.23). A substantial proportion of respondents disagreed that their organization effectively plans for contract needs (SD = 30(21.9%), D = 30(21.9%) for strategic planning). Innovative approaches to planning were less common, with 24.1% strongly disagreeing and 32.1% neutral. The implementation of post-contract audit recommendations was similarly low (SD = 38(27.7%), D = 31(22.6%)), suggesting that planning processes may not consistently translate into improved practices for future engagements. These findings indicate gaps in proactive and innovative contract planning that may impact firm performance.

Monitoring and evaluation practices were modest (M = 2.63, SD = 1.25), with many respondents reporting disagreement with regular review of contracts (SD = 37(27.0%), D = 36(26.3%)). Continuous improvement efforts were recognized as important, but actual implementation appears limited, reflected in neutral and disagreement responses (N = 42(30.7%)). The recurring use of pre-developed contract documents (M = 2.78, SD = 1.26) suggests some standardization but also potential rigidity in adapting contracts to unique engagements. Overall, monitoring and evaluation mechanisms appear partially implemented, indicating moderate influence on firm performance.

The documentation sub-construct showed slightly higher engagement than planning and monitoring (M = 2.68, SD = 1.31). While a portion of respondents agreed that contracts were stored for future reference (A = 19(13.9%), SA = 20(14.6%)), there was still a high level of disagreement (SD = 28(20.4%), D = 35(25.5%)), indicating inconsistent practices. Adoption of standard PPRA documents was moderate (M = 2.78, SD = 1.29), while post-contract audits and performance reviews were underutilized (SD and D > 25%). These results suggest that documentation practices are partially implemented, which may affect the organization's ability to track, evaluate, and improve contracts consistently, influencing overall firm performance.

### 4.5.1 Summary descriptive results for contract management practices

The study further analysis executed to determine the difference mean rating on the various sub variables of contract management practices. The findings on the sub variables presented as in Table 4.13 below.

**Table 4. 13: Summary descriptive results for Contract Management**

| Firm performance | Mean | STD |
|---|---|---|
| Planning | 2.59 | 1.23 |
| Monitoring and evaluation | 2.63 | 1.25 |
| Documentation | 2.68 | 1.31 |
| **Overall Mean Contract Management** | **2.633** | **1.263** |

**Source: (Field survey, 2025)** *KEY: STD-Standard Deviation*

From the summary, it is evident that documentation has the highest mean of (M=2.68 SD=1.31) followed by monitoring and evaluation (M=2.63 SD=1.25) and lastly planning in contracts (M=2.59 SD=1.23). The overall mean of contract management was low with a mean of (M=2.633 SD=1.263) indicating that there was low implementation of contract management, low adoption of contract management practices in independent offices and commissions, Kenya.

The low overall mean for contract management (M=2.633) is a reflection of systemic deficiencies in how independent offices and commissions in Kenya administer procurement contracts. Documentation, while recording the highest sub-construct mean (M=2.68), remains below the midpoint, suggesting that even the most institutionalized aspect of contract management in record keeping was inadequately practiced. The near-uniform low means across planning (M=2.59), monitoring and evaluation (M=2.63), and documentation (M=2.68) point to a fragmented contract management culture across these institutions. The finding aligns with concerns raised by Muinde (2022), who attributed procurement challenges in Kenyan public universities to inadequate contract records management and weak buyer-supplier collaboration. Furthermore, the relatively higher adoption of documentation over planning implies that these offices are more reactive to retaining records after engagement rather than proactive in systematically planning and evaluating contracts. This reactive orientation limits the institutions' ability to leverage contract management as a strategic tool for performance improvement. Addressing this gap requires deliberate policy interventions that target contract lifecycle competencies, particularly in planning and monitoring.

### 4.5.2 Effect of Contract Management Practices on Performance of Independent Offices and Commissions, Kenya

In order to determine the effect of Contract Management Practices on performance of the Independent offices and Commissions in Kenya, the study first established whether there existed association between Contract Management Practices and Performance. This was carried out using

Pearson (r) correlation analysis to determine the direction and strength of associations among planning, monitoring and evaluation, documentation, and overall firm performance. This analysis provides insight into how different dimensions of contract management related to organizational outcomes, highlighting which practices may have stronger influence on performance. The results of these correlations summarized in a table as below;

**Table 4. 14: Pearson r correlation between Contract management and Firm Performance**

| | | Firm Performance | Planning | Monitoring & evaluation | Documentation |
|---|---|---|---|---|---|
| Firm Performance | Pearson Correlation | 1 | .449** | .402** | .491** |
| | Sig. (2-tailed) | | .000 | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Planning | Pearson Correlation | .449** | 1 | .452** | .364** |
| | Sig. (2-tailed) | .000 | | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Monitoring & evaluation | Pearson Correlation | .402** | .452** | 1 | .599** |
| | Sig. (2-tailed) | .000 | .000 | | .000 |
| | N | 137 | 137 | 137 | 137 |
| Documentation | Pearson Correlation | .491** | .364** | .599** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| | N | 137 | 137 | 137 | 137 |

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

**Source: (Field survey, 2025)**

The findings indicate that planning is positively and significantly correlated with firm performance ($r = .449$, $p < .001$), suggesting that organizations that engage in systematic planning of contracts tend to achieve better performance outcomes. The strength of this relationship reflects a moderate association, implying that structured contract planning are positively associated with organizational effectiveness and goal attainment. Furthermore, planning demonstrated positive and significant correlations with monitoring and evaluation ($r = .452$, $p < .001$) and documentation ($r = .364$, $p < .001$), indicating that effective planning is closely linked with structured oversight mechanisms and proper contract record management.

Monitoring and evaluation also exhibited a positive and statistically significant relationship with firm performance ($r = .402$, $p < .001$). This moderate correlation suggests that organizations that consistently review, assess, and track contract implementation are more likely to realize improved performance outcomes. In addition, monitoring and evaluation showed strong positive associations with planning ($r = .452$, $p < .001$) and documentation ($r = .599$, $p < .001$). The

relatively strong correlation with documentation indicates that effective contract monitoring is often supported by systematic documentation practices, reinforcing the interdependence of these contract management dimensions.

Documentation revealed the strongest positive correlation with firm performance ($r = .491$, $p < .001$), indicating that systematic storage of contract records, use of standardized documentation, and post-contract evaluations are strongly associated with improved organizational outcomes. Documentation was also significantly correlated with planning ($r = .364$, $p < .001$) and monitoring and evaluation ($r = .599$, $p < .001$), highlighting the integrated nature of contract management processes. Overall, the results demonstrate that all three sub-constructs planning, monitoring and evaluation, and documentation are positively and significantly related to firm performance at the 0.01 level, with documentation exhibiting the strongest association, followed by planning and monitoring and evaluation.

After establishing association between contract management and performance, the study then established effect of Contract Management Practices on Performance. To achieve this, multiple regression modelling, as well as linear regressions were made use to scrutinize collected field data. This analysis aims to examine whether there exists relationship between elements of contract management and performance, as hypothesized in $H_{02}$.The linear regression model involved using performance (dependent variable) as well as contract management (independent variable) as the predictor variable. The model was formulated as follows:

$$\gamma_i = \beta_0 + \beta_1 X_{21i} + \beta_2 X_{22i} + \beta_3 X_{23i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(iii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Where, $\beta_0$ is the value of $Y$ as a constant of the regression, when $X$ is set at 0. $\beta_1, \beta_2\ \beta_3$Are co-efficient of predictors ($X_{21i}$-$X_{23i}$), $X_{21i}$ Planning, $X_{22i}$ Monitoring and Evaluation, $X_{22i}$ Documentation $e$ Epsilon. The findings are presented as shown in Table 4.15.

**Table 4. 15: Model results on effect of Contract Management practices on performance of independent offices and commissions in Kenya**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .572[a] | 0.327 | 0.312 | 0.59198 | 0.327 | 21.583 | 3 | 133 | 0.000 |

a. Predictors: (Constant), Documentation, Planning, Monitoring & evaluation

**ANOVA**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 22.69 | 3 | 7.563 | 21.583 | .000[b] |
| | Residual | 46.609 | 133 | 0.35 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Documentation, Planning, Monitoring & evaluation

**Source: (Field survey, 2025)**

The model results in Table 4.15 indicate a moderate positive relationship between the combined predictors and performance (R = .572). The coefficient of determination shows that contract management practices explain 32.7% of the variance in performance ($R^2$ = .327), with an adjusted $R^2$ of .312, indicating that approximately 31.2% of the variation in organizational performance is accounted for by the three predictors after adjusting for sample size. The overall regression model was statistically significant, F (3, 133) = 21.583, p < .001, suggesting that the predictors jointly provide a meaningful contribution to explaining performance outcomes.

The findings imply that contract management practices collectively have a significant influence on the performance of independent offices and commissions in Kenya. The $R^2$ change of .327 confirms that the inclusion of planning, monitoring and evaluation, and documentation substantially improves the model's explanatory power compared to a model without predictors. Although 32.7% of the variance is explained by the model, a considerable proportion (67.3%) remains attributable to other factors not included in the analysis, indicating that performance is multidimensional. Nonetheless, the statistically significant F-test demonstrates that the combined

effect of the three contract management dimensions is not due to chance, underscoring their relevance in enhancing organizational performance.

The ANOVA results were examined to determine whether the regression model predicting firm performance from Contract Management (documentation, planning, and monitoring and evaluation) was statistically significant. The findings indicate that the overall model was significant, $F(3, 133) = 21.583$, $p < .001$. The regression sum of squares was 22.690, while the residual sum of squares was 46.609, yielding a total sum of squares of 69.299. The mean square for the regression was 7.563 compared to a residual mean square of .350, demonstrating that the variance explained by the model is substantially greater than the unexplained variance.

These results confirm that the set of predictors documentation, planning, and monitoring and documentation collectively contribute significantly to variations in firm performance. The statistically significant F-value indicates that the regression model provides a better fit to the data than a model without predictors. This implies that contract management practices, when considered together, significantly predict performance outcomes among independent offices and commissions in Kenya, thereby supporting the suitability of the regression model for explaining organizational performance.

**Table 4.16: Model Coefficient Result on Effect of contract management practices on performance of independent offices and commissions in Kenya**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.112 | 0.129 | | 8.620 | 0.000 |
| | Planning | 0.186 | 0.051 | 0.296 | 3.647 | 0.000 |
| | Monitoring & evaluation | 0.043 | 0.067 | 0.06 | 0.642 | 0.524 |
| | Documentation | 0.245 | 0.063 | 0.347 | 3.889 | 0.000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The regression coefficients were examined to determine the individual effect of each contract management practice planning, monitoring and evaluation, and documentation on firm performance. The results show that planning had a positive and statistically significant effect on

firm performance (B = .186, SE = .051, β = .296, t = 3.647, p < .001). This indicates that a one-unit increase in planning practices is associated with a 0.186 unit increase in firm performance, holding other variables constant. Documentation also demonstrates a positive and statistically significant effect on firm performance (B = .245, SE = .063, β = .347, t = 3.889, p < .001), suggesting that improved documentation practices contribute significantly to enhanced organizational outcomes while holding other variables constant. The standardized beta coefficients further indicate that documentation (β = .347) has the strongest relative contribution to firm performance, followed by planning (β = .296).

In contrast, monitoring and evaluation does not have a statistically significant effect on firm performance (B = .043, SE = .067, β = .060, t = .642, p = .524). Although the coefficient is positive, holding other variables constant, the high p-value indicates that its independent contribution to firm performance is not significant when planning and documentation are included in the model. The constant term is statistically significant (B = 1.112, SE = .129, t = 8.620, p < .001), representing the expected level of firm performance when all predictors are held at zero. Overall, the findings suggest that while contract management practices collectively influence firm performance, documentation and planning are the key significant predictors, whereas monitoring and evaluation does not independently predict performance in the presence of the other variables. Based on the unstandardized coefficients, the multiple regression model estimating the effect of contract management practices on firm performance expressed as follows.

$$\boldsymbol{Y}=\mathbf{1.112}+\mathbf{0.186}(\boldsymbol{Planning})+\mathbf{0.043}(\boldsymbol{Monitoring\ \&\ Evaluation})+\mathbf{0.245}(\boldsymbol{Documentation})$$

The model equation indicates that when planning, monitoring & evaluation, and documentation are held constant at zero, firm performance is predicted to be 1.112. The coefficient for planning (B = .186) implies that a one-unit increase in planning practices leads to a 0.186 unit increase in firm performance, holding other factors constant. Similarly, documentation (B = .245) has the largest unstandardized coefficient, suggesting that a one-unit improvement in documentation practices results in a 0.245 unit increase in firm performance, ceteris paribus. In contrast, monitoring and evaluation (B = .043) has a relatively small coefficient, indicating a minimal positive change in performance for each unit increase, and this effect was not statistically significant in the model. Overall, the equation demonstrates that documentation and planning are

the main drivers of firm performance among the three contract management practices included in the model.

The finding that documentation ($B = .245$, $\beta = .347$, $p < .001$) and planning ($B = .186$, $\beta = .296$, $p < .001$) are the two significant drivers of performance, while monitoring and evaluation is not significant ($B = .043$, $p = .524$), can be richly interpreted through the theoretical lenses underpinning this study. From the perspective of the Relational View Theory (Dyer & Singh, 1990), the significance of documentation is consistent with the argument that relationship-specific assets including formal records of agreements, performance benchmarks, and contractual obligations that constitute a form of inter-organizational capital that underpins competitive advantage. When independent offices and commissions maintain standardized contract documentation such as PPRA-compliant tender documents and post-award audit records, they create institutional memory that enables consistent supplier governance and accountability, ultimately improving performance outcomes such as timeliness and cost reduction. Documentation operationalizes the relational governance mechanisms at the heart of the Relational View, ensuring that contractual commitments made through inter-organizational exchanges are traceable, enforceable, and improvable over time.

The Contract Lifecycle Management (CLM) concept (Craswell; Macbeth, 2012), which is a supporting theoretical framework in this study, directly validates the significance of both planning and documentation. CLM recognizes contracts as dynamic entities that require structured attention at every stage — from initiation (planning) through execution to post-contract evaluation. The current findings that planning positively predicts performance affirm the CLM argument that organizations that invest in systematically anticipating contract needs, incorporating innovative contracting approaches, and following through on post-audit recommendations derive superior performance gains. The non-significance of monitoring and evaluation, however, is an important departure from CLM's cyclical model, suggesting that in the context of independent offices and commissions — operating under resource constraints and political pressures — monitoring activities may not be implemented with the consistency or depth required to drive measurable performance improvements.

Social Exchange Theory (SET) offers a complementary explanation. SET posits that organizational relationships flourish when interactions are grounded in reciprocity, trust, and

perceived fairness (Blau, 2002). The significance of planning is consistent with SET's emphasis on relational commitment: organizations that plan contracts carefully signal to suppliers that they are serious, reliable partners, creating conditions of trust that facilitate superior execution. Documentation; similarly reinforces perceived fairness by ensuring that all contractual terms are transparently recorded and accessible, reducing information asymmetry and potential for opportunism. The insignificance of monitoring and evaluation may reflect a gap in SET's exchange calculus within these institutions where monitoring is perceived more as a surveillance mechanism than a collaborative improvement tool, potentially undermining the relational trust that SET associates with high performance.

### 4.5.3 Summary model results on effect of Contract Management Practices on Performance of Independent offices and Commissions in Kenya

According to the findings in Table 4.17, while the majority of Contract Management practice elements had a statistically significant and positive effect on performance, some (monitoring and evaluation) had a positive but insignificant effect on the performance of independent offices and commissions in Kenya. To investigate the overall effect of Contract Management practices on performance and determine whether Contract Management practices had a significant effect on performance, the researcher conducted a simple linear regression analysis, pitting performance against mean Contract Management practices. Table 4.18 shows the model summary, ANOVA, and coefficients for the analysis. Data were analyzed using SPSS, with mean elements of Contract Management as the single independent variable and organizational performance as the dependent variable.

A standard linear model regression analysis was also mounted to ascertain effect of contract management practices on performance, this involving regressing performance against mean elements of contract management practices. The linear regression model involved using performance (dependent variable) as the outcome variable and mean elements of contract management (independent variable) as the predictor variable.

$$\gamma_i = \beta_0 + \beta_2 X_{2i} + \varepsilon \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . \text{(iv)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Where: Y represents performance, $X_2$ represents Contract Management, $\beta_0$ is the intercept coefficient, representing the expected performance when contract management is zero. $\beta_2$ is the regression quantity, which shows the variance in performance connected with a one-unit change in contract management. ε represents the error term, accounting for unexplained variance in performance. The regression models approximated the coefficients ($\beta_0$ and $\beta_1$) and the significance of the regression coefficient $\beta_1$ was assessed using hypothesis testing, specifically evaluating whether it significantly varies from zero (0). Where the coefficient $\beta_1$ is established to be statistically significant (typically indicated by a p-value < 0.05), it would suggest that contract management has a significant influences performance of independent offices and commissions in Kenya. Conversely, if the coefficient is not statistically significant, it would fail to support the hypothesis ($H0_2$) that contract management has a significant effect on performance. First, the findings are presented as shown:

The model allowed for an assessment of the combined effect of all sourcing dimensions on performance prior to disaggregating individual practices in multiple regression analysis. Results are presented in terms of model fit, statistical significance, and regression coefficients to provide a comprehensive view of the relationship.

**Table 4. 17: Summary model results on Effect of Contract management on Performance of Independent Offices and Commissions, Kenya**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .557[a] | .311 | .306 | .59488 | .311 | 60.829 | 1 | 135 | .000 |

a. Predictors: (Constant), Contract Management

**Source: (Field survey, 2025)**

The model summary results in Table 4.9 indicate a moderate positive relationship between contract management and firm performance (R = .557). The coefficient of determination shows that contract management explains 31.1% of the variance in firm performance ($R^2$ = .311), with an adjusted $R^2$ of .306, indicating that 30.6% of the variation in performance is accounted for after adjusting for sample size. The standard error of the estimate was .59488, reflecting the average deviation of observed values from the regression line.

The overall regression model was statistically significant, F (1, 135) = 60.829, p < .001, demonstrating that contract management significantly predicts firm performance. The $R^2$ change of .311 confirms that the inclusion of contract management in the model substantially improves the prediction of firm performance when compared to a model without predictors. These findings show that contract management has a statistically significant and meaningful impact on firm performance in Kenya's independent offices and commissions. An analysis of variance (ANOVA) was used to determine the overall significance of the simple linear regression model that examined the effect of contract management on firm performance, as shown in Table 4.18.

**Table 4. 18: Summary ANOVA results on Effect of Contract management practices on Performance of Independent Offices and Commissions, Kenya**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 21.526 | 1 | 21.526 | 60.829 | .000[b] |
| | Residual | 47.773 | 135 | .354 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Contract Management

**Source: (Field survey, 2025)**

The results indicate that the regression model was statistically significant, F (1, 135) = 60.829, p < .001. The regression sum of squares was 21.526, while the residual sum of squares was 47.773, yielding a total sum of squares of 69.299. The mean square for the regression (21.526) was substantially larger than the residual mean square (.354), indicating that the variance explained by contract management exceeds the unexplained variance. These findings demonstrate that contract management significantly predicts firm performance and that the model provides a better fit than a model without predictors. The statistically significant F-value confirms that the proportion of variance in firm performance explained by contract management is unlikely to have occurred by chance. Therefore, the ANOVA results support the conclusion that contract management has a significant effect on firm performance among independent offices and commissions in Kenya.

The coefficients table shows the parameter estimates for the simple linear regression model that examines the impact of contract management on company performance. The unstandardized coefficients (B), standard errors (SE), standardized coefficient (β), t-values, and significance levels are used to assess the predictor's magnitude and statistical significance. These statistics

show the degree to which contract management predicts firm performance and whether the observed effect is statistically significant.

**Table 4. 19: Summary Coefficient model results on Effect of Contract Management Practices on Performance of Independent Offices and Commissions, Kenya**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.105 | .130 | | 8.5 | .000 |
| | Contract Management | .473 | .061 | .557 | 7.754 | .000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The results show that contract management has a positive and statistically significant effect on firm performance (B = .473, SE = .061, β = .557, t = 7.754, p < .001). The standardized coefficient (β = .557) reflects a moderate positive effect size, demonstrating that contract management makes a substantial contribution to explaining performance outcomes. This indicates that a one-unit increase in contract management is associated with a 0.557 units increase in firm performance. The constant term is also statistically significant (B = 1.105, SE = .130, t = 8.5, p < .001), indicating the expected level of firm performance when contract management is held at zero. Overall, the findings confirm that contract management is a significant predictor of firm performance among independent offices and commissions in Kenya.

Based on the unstandardized coefficients, the simple linear regression model estimating the effect of contract management on firm performance is expressed as:

$$\textit{Firm Performance} = \mathbf{1.105} + \mathbf{0.473}(\textit{Contract Management})$$

The model equation indicates that when contract management is equal to zero, firm performance is predicted to be 1.105. The slope coefficient (B = .473) shows that a one-unit increase in contract management leads to a .473 units increase in firm performance. This positive coefficient confirms a direct relationship between contract management and performance. The magnitude of the coefficient suggests that improvements in contract management practices are associated with substantial increases in firm performance. The statistical significance of the coefficient (p < .001) indicates that the relationship is unlikely to have occurred by chance, thereby supporting the

conclusion that contract management is a significant predictor of firm performance among independent offices and commissions in Kenya.

The results indicate that contract management significantly influences the performance of independent offices and commissions in Kenya. Specifically, practices such as contract records management, contract relationship management, and monitoring of contract execution were found to enhance efficiency, accountability, and overall procurement outcomes. These findings align closely with the Relational View Theory, which emphasizes the value of inter-organizational relationships and the strategic integration of resources between buyers and suppliers. Similarly, the Social Exchange Theory supports the notion that transparent and mutually beneficial contract interactions foster trust and commitment, thereby improving performance outcomes. The Collaborative Network Theory further reinforces these findings by highlighting how coordinated networks and information sharing among stakeholders strengthen the implementation of contracts and amplify their positive impact on organizational performance.

Comparing with global and regional empirical studies, the findings are consistent with Mamavi *et al*. (2018) in France, Rene (2015) in the US, and Rashid Issa (2019) in Indonesia, who demonstrated that contract management dimensions whether pre-award, post-award, or contract length can significantly affect performance metrics such as cost efficiency, project delivery, and solution effectiveness. Within the African context, studies such as Changalima, Mchopa & Ismail (2023) in Tanzania and Nsanzimana & Mulyungi (2018) in Rwanda confirm that effective contract management practices positively influence organizational outcomes. Locally, research by Muinde (2022), Kipkemoi & Makori (2021), Mwangi (2020), and Mungech & Ndeto (2024) highlights similar trends, showing that contract management improves procurement performance, transparency, and compliance within public institutions. The current study extends these findings by examining contract management alongside other strategic procurement practices sourcing and negotiation while introducing collaborative capability as a moderating factor, thereby offering a more integrated perspective in the context of Kenyan independent offices and commissions.

The study's finding of a significant, positive relationship between contract management and firm performance ($B = .473$, $R^2 = .311$) makes a substantive contribution to the growing literature on public procurement management in developing economies. The strength of the relationship explaining 31.1% of variance was considerably higher than that found for sourcing practices ($R^2$

= .181), suggesting that contract management is a relatively more powerful driver of performance within independent offices and commissions in Kenya. This finding has important implications for public-sector procurement reform priorities.

The significance of documentation (β = .347) over planning (β = .296) in the multiple regression model provides a nuanced insight into how contract management influences performance. Documentation, encompassing the storage of contract records, use of PPRA standard documents, and post-contract audits, directly supports accountability and institutional learning. This is consistent with the findings of Mungech and Ndeto (2024), who demonstrated that contract records management and vendor management significantly improved procurement performance in metropolitan county governments in Kenya. The similarity in findings across different public sector entities in Kenya points to a systemic pattern: Kenyan public institutions that invest in structured contract documentation systems tend to achieve better procurement outcomes, irrespective of the specific institutional mandate.

The non-significance of monitoring and evaluation (B = .043, p = .524) diverges from findings by Changalima, Mchopa & Ismail (2023) in Tanzania, who found that supplier monitoring positively and significantly influenced procurement performance, and that contract management moderated this relationship positively. This divergence suggests that monitoring is operationalized differently across contexts. In Tanzania's public organizations, supplier monitoring was more formalized and integrated with contract administration; in Kenya's independent offices and commissions, however, the descriptive findings revealed that only 23.3% of respondents agreed with regular contract reviews (items 4 and 5, Table 4.12), indicating that monitoring activities are aspirational rather than consistently practiced. Bridging this implementation gap would require dedicated monitoring capacity within procurement units, such as contract review committees with clear terms of reference and reporting protocols.

Furthermore, the overall significant model ($F = 60.829$, $p < .001$, $R^2 = .311$) resonates with the findings of Kipkemoi and Makori (2021), who found contract management practices positively and significantly influenced performance in Kenyan public entities, and with Nsanzimana and Mulyungi (2018), who established similar positive effects in Rwanda's road construction sector. The cross-context consistency of these findings affirms that contract management is a durable predictor of public-sector performance across diverse African regulatory and institutional

environments. For independent offices and commissions in Kenya, these findings underscore the strategic importance of institutionalizing comprehensive contract management frameworks, particularly those that integrate planning, documentation, and systematic monitoring as part of a broader effort to improve procurement performance and service delivery.

In conclusion, the study validates the hypothesis that contract management positively affects organizational performance when supported by collaborative capability. Triangulation of theory, empirical evidence, and the study findings demonstrates that effective contract management practices particularly when fostering collaboration, trust, and relationship governance enhance procurement outcomes and service delivery. This provides both theoretical and practical justification for prioritizing structured contract management frameworks in public institutions. Additionally, the results highlight the importance of combining contract management with other strategic procurement practices, such as sourcing and negotiation, to optimize overall performance, confirming that collaborative networks are a critical enabler of effective procurement outcomes.

### 4.6 Overview of Negotiation Practices

In the third objective, the researcher sought to determine effect of negotiation as a strategic procurement practice on the performance of independent offices and commissions in Kenya. In addressing the third objective, the study examined the effect of negotiation as a strategic procurement practice on the performance of independent offices and commissions in Kenya. Negotiation was conceptualized as a multidimensional construct comprising three sub-constructs: terms of service, pricing, and styles and approaches. The terms of service dimension assessed the extent to which organizations negotiate payment terms and quality standards with suppliers. The pricing dimension focused on negotiations relating to contractual terms, employee negotiation skills, and consistency of payment modes with agreed terms. The styles and approaches dimension evaluated the relevance of negotiation styles, existence of negotiation policies, and agreement on delivery periods.

Descriptive statistics were generated using frequencies (f), percentages (%), means (M), and standard deviations (SD), based on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The results are presented per item and subsequently aggregated into sub-construct means and standard deviations. First, descriptive analyses were done and the results presented as shown

in Table 4.13. Respondents were asked to select the appropriate response for each question using a tick (✓) or a mark (X) as relates to the following negotiation aspects within your organization using the scale (1=Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree)

**Table 4. 20: Descriptive statistics for Negotiation practices in Independent offices and Commissions, Kenya**

| Terms of service | SD | D | N | A | SA | M | SD |
|---|---|---|---|---|---|---|---|
| The firm negotiates with its service providers on payment terms for goods, works and services | 33(24.1) | 30(21.9) | 38(27.7) | 20(14.6) | 16(11.7) | 2.68 | 1.31 |
| We discuss with our suppliers to obtain quality of goods, works and services | 29(21.2) | 28(20.4) | 42(30.7) | 23(16.8) | 15(10.9) | 2.76 | 1.27 |
| We discuss with our suppliers to agree on payment terms | 37(27) | 26(19) | 42(30.7) | 20(14.6) | 12(8.8) | 2.59 | 1.27 |
| **Mean and Standard deviation** | | | | | | **2.68** | **1.28** |
| **Pricing terms** | | | | | | | |
| The firm negotiates with its service providers on terms of contract service for goods, works and services | 21(15.3) | 40(29.2) | 43(31.4) | 21(15.3) | 12(8.8) | 2.73 | 1.16 |
| Employees have the necessary skills to hold negotiations with suppliers for better terms and prices | 32(23.4) | 28(20.4) | 44(32.1) | 21(15.3) | 12(8.8) | 2.66 | 1.24 |
| The organization ensures that its mode of payment is consistent with negotiated terms of payment | 22(16.1) | 35(25.5) | 50(36.5) | 13(9.5) | 17(12.4) | 2.77 | 1.20 |
| **Mean and Standard deviation** | | | | | | **2.72** | **1.20** |
| **Styles & approaches** | | | | | | | |
| The organization adopts a negotiation style which is relevant and consistent with objectives of the procurement unit | 18(13.1) | 24(17.5) | 50(36.5) | 28(20.4) | 17(12.4) | 3.01 | 1.19 |
| The department has a policy regarding the appropriate negotiation style to use with suppliers | 30(21.9) | 27(19.7) | 42(30.7) | 27(19.7) | 11(8) | 2.72 | 1.24 |
| We discuss with our suppliers to agree on delivery periods for goods and services | 20(14.6) | 34(24.8) | 42(30.7) | 22(16.1) | 19(13.9) | 2.90 | 1.24 |
| **Mean and standard deviation** | | | | | | **2.88** | **1.22** |
| **Overall Mean and Standard deviation** | | | | | | **2.76** | **1.23** |

**Source: (Field survey, 2025)**

*KEY: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree*

For the terms of service sub-construct, the computed aggregate mean was (M = 2.68, SD = 1.28), indicating generally low to moderate agreement with negotiation practices related to service terms.

On negotiating payment terms for goods, works, and services, 33(24.1%) strongly disagreed, 30(21.9%) disagreed, 38(27.7%) were neutral, 20(14.6%) agreed, and 16(11.7%) strongly agreed (M = 2.68, SD = 1.31). Regarding discussions to obtain quality goods and services, 29(21.2%) strongly disagreed, 28(20.4%) disagreed, 42(30.7%) were neutral, 23(16.8%) agreed, and 15(10.9%) strongly agreed (M = 2.76, SD = 1.27). On agreeing on payment terms, 37(27.0%) strongly disagreed, 26(19.0%) disagreed, 42(30.7%) were neutral, 20(14.6%) agreed, and 12(8.8%) strongly agreed (M = 2.59, SD = 1.27). Across the three items, the majority of responses were clustered around disagreement and neutrality, indicating limited institutionalization of negotiation on service terms. The relatively large standard deviations suggest variability in responses across institutions.

For the pricing sub-construct, the aggregate mean was (M = 2.72, SD = 1.20), reflecting moderate but below-average agreement with pricing-related negotiation practices. On negotiating contractual service terms, 21(15.3%) strongly disagreed, 40(29.2%) disagreed, 43(31.4%) were neutral, 21(15.3%) agreed, and 12(8.8%) strongly agreed (M = 2.73, SD = 1.16). Concerning employees' negotiation skills, 32(23.4%) strongly disagreed, 28(20.4%) disagreed, 44(32.1%) were neutral, 21(15.3%) agreed, and 12(8.8%) strongly agreed (M = 2.66, SD = 1.24). On consistency of payment modes with negotiated terms, 22(16.1%) strongly disagreed, 35(25.5%) disagreed, 50(36.5%) were neutral, 13(9.5%) agreed, and 17(12.4%) strongly agreed (M = 2.77, SD = 1.20). The predominance of neutral and disagree responses indicates that pricing negotiations and related competencies are not strongly entrenched. The moderate dispersion (SDs ranging from 1.16 to 1.24) reflects variation in institutional practices.

For the styles and approaches sub-construct, the aggregate mean was comparatively higher (M = 2.88, SD = 1.22), suggesting relatively stronger adoption of negotiation styles and structured approaches. On adopting relevant negotiation styles, 18(13.1%) strongly disagreed, 24(17.5%) disagreed, 50(36.5%) were neutral, 28(20.4%) agreed, and 17(12.4%) strongly agreed (M = 3.01, SD = 1.19). Regarding the existence of departmental negotiation policy, 30(21.9%) strongly disagreed, 27(19.7%) disagreed, 42(30.7%) were neutral, 27(19.7%) agreed, and 11(8.0%) strongly agreed (M = 2.72, SD = 1.24). On agreeing on delivery periods, 20(14.6%) strongly disagreed, 34(24.8%) disagreed, 42(30.7%) were neutral, 22(16.1%) agreed, and 19(13.9%) strongly agreed (M = 2.90, SD = 1.24). Although neutrality remained substantial, this sub-

construct recorded comparatively higher agreement levels than the others. Overall, the findings indicate that while negotiation practices exist within independent offices and commissions in Kenya, their implementation is moderate, with styles and approaches being relatively more established than terms of service and pricing dimensions.

### 4.6.1 Summary descriptive results for Negotiation Practices

The summary analysis was executed to establish the difference mean rating on the various sub variables of negotiation practices. The findings on the sub variables are displayed in Table 4.21 as presented:

**Table 4. 21: Summary descriptive results for Negotiation Practices**

| Firm performance | Mean | STD |
|---|---|---|
| Terms of service | 2.684 | 1.283 |
| Pricing terms | 2.723 | 1.204 |
| Negotiation Styles and approaches | 2.881 | 1.224 |
| **Overall Mean Negotiation** | **2.764** | **1.234** |

**Source: (Field survey, 2025)**

*KEY: STD-Standard Deviation*

The summary descriptive findings reveal that negotiation practices in independent offices and commissions in Kenya are moderately, yet inadequately, institutionalized, with all three sub-constructs falling below or near the scale midpoint of 3.0. Notably, styles and approaches recorded the highest mean (M=2.881), indicating that procurement officers have a relatively better appreciation of structured negotiation approaches compared to the more transactional elements of service terms (M=2.684) and pricing (M=2.723). This hierarchy is significant: it suggests that while there is emerging awareness of negotiation as a strategic process reflected in the highest item score of M=3.01 for adoption of relevant negotiation styles, the practical application of negotiation to secure better pricing and service level agreements remains limited.

The near-neutral mean for styles and approaches (M=2.881) may reflect increasing familiarity with procurement regulations that require structured pre-qualification and negotiation procedures; however, the inability to translate this awareness into concrete pricing negotiations (M=2.72) and service term agreements (M=2.68) points to a skills and capability gap. This resonates with Mwagike and Changalima (2022), who identified planning, communication, and persuasion as critical negotiation skills that many procurement professionals in Tanzania lacked. For Kenya's

independent offices and commissions, training interventions focused on pricing strategy and terms of service negotiation would most directly address the identified gaps. The overall mean of M=2.764 signals a context where negotiation is recognized in principle but underperformed in practice, limiting the potential contribution of this strategic practice to organizational performance.

### 4.6.2 Effect of Negotiation Practices on Firm Performance of Independent offices and Commissions in Kenya

To establish the effect of negotiation practices on performance, the study first analyzed the correlation between these two constructs. In order to achieve this, a Pearson product-moment correlation analysis was conducted to examine the association between negotiation sub-constructs (terms of service, pricing, and styles & approaches) and firm performance among independent offices and commissions in Kenya. The results, presented in Table 4.21, show the strength, direction, and significance of the associations between each sub-construct and performance outcomes. All correlations were tested at the 0.01 significance level (2-tailed) with a sample size of 137 respondents.

**Table 4. 22: Correlation between Negotiation Practices and Firm Performance**

| | | Firm Performance | Terms of service | Pricing | Styles & approaches |
|---|---|---|---|---|---|
| Firm Performance | Pearson Correlation | 1 | .574** | .660** | .659** |
| | Sig. (2-tailed) | | .000 | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Terms of service | Pearson Correlation | .574** | 1 | .608** | .591** |
| | Sig. (2-tailed) | .000 | | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Pricing | Pearson Correlation | .660** | .608** | 1 | .739** |
| | Sig. (2-tailed) | .000 | .000 | | .000 |
| | N | 137 | 137 | 137 | 137 |
| Styles & approaches | Pearson Correlation | .659** | .591** | .739** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| | N | 137 | 137 | 137 | 137 |

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

**Source: (Field survey, 2025)**

The terms of service sub-construct demonstrated a strong positive and statistically significant correlation with firm performance ($r = .574$, $p < .001$). This indicates that institutions that engage in systematic negotiation on service terms, including payment arrangements and quality agreements, tend to record higher levels of performance. Furthermore, terms of service showed

substantial positive correlations with pricing ($r = .608$, $p < .001$) and styles & approaches ($r = .591$, $p < .001$), suggesting that negotiation on service terms is closely associated with both the financial aspects of negotiation and the adoption of appropriate negotiation styles, reflecting integrated procurement practices.

The pricing sub-construct recorded the strongest positive correlation with firm performance ($r = .660$, $p < .001$). This implies that effective negotiation on pricing, contractual terms, and payment consistency contributes significantly to improved organizational performance. Pricing was also highly correlated with styles & approaches ($r = .739$, $p < .001$) and terms of service ($r = .608$, $p < .001$), indicating that negotiation on financial terms is closely linked with both procedural approaches and service-level agreements. These associations highlight the interdependent nature of negotiation practices within procurement processes.

The styles & approaches sub-construct similarly exhibited a strong positive correlation with firm performance ($r = .659$, $p < .001$). Organizations that adopt negotiation styles aligned with procurement objectives and maintain formal policies on negotiation tend to achieve better performance outcomes. Styles & approaches were also strongly correlated with pricing ($r = .739$, $p < .001$) and terms of service ($r = .591$, $p < .001$), emphasizing that structured negotiation approaches complement both financial negotiations and service-level discussions. Collectively, these results suggest that all three negotiation sub-constructs are positively associated with firm performance, with pricing and negotiation styles demonstrating particularly strong interrelationships. After establishing correlation between negotiation practices and performance, the study determined effect of the latter on performance.

Negotiation as a strategic procurement practice was examined to determine its effect on the performance of Independent offices and Commissions in Kenya. The construct was measured using three sub-constructs: terms of service, pricing, and styles & approaches. Terms of service captured negotiation on payment arrangements and quality of goods, works, and services. Pricing assessed negotiations on contractual terms, consistency of payment modes, and employees' negotiation skills. Styles & approaches measured the relevance of negotiation styles, departmental policies, and agreement on delivery periods. The analysis employed multiple linear regression to determine how these sub-constructs collectively predict firm performance, with results presented

using standard model fit statistics, including R, $R^2$, adjusted $R^2$, standard error of the estimate, and F-change.

**Table 4. 23: Model Result on Effect of Negotiation practices on performance of Independent offices and Commissions in Kenya**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .724[a] | .524 | .514 | .49778 | .524 | 48.890 | 3 | 133 | .000 |

a. Predictors: (Constant), Styles & approaches, Terms of service, Pricing

**Source: (Field survey, 2025)**

The results indicated that negotiation practices significantly explain variations in firm performance among the offices studied. The model yielded a strong multiple correlation coefficient ($R = .724$) and accounted for 52.4% of the variance in firm performance ($R^2 = .524$, adjusted $R^2 = .514$). The standard error of the estimate was .49778, indicating the average deviation between observed and predicted performance values. The overall model was statistically significant, $F(3, 133) = 48.890$, $p < .001$, demonstrating that the combination of negotiation sub-constructs terms of service, pricing, and styles & approaches had a positive significant effect on firm performance. These findings confirm that strategic negotiation, when implemented across service terms, pricing, and procedural approaches, is an important determinant of organizational performance in independent offices and commissions in Kenya.

The ANOVA results for the regression model examining the effect of negotiation on firm performance assess whether the predictors collectively provide a significant explanation of variation in performance across independent offices and commissions in Kenya. This analysis tests the null hypothesis that the regression model does not improve the prediction of firm performance compared to a model with no predictors, using the F-statistic to determine statistical significance.

**Table 4. 24: ANOVA Result on Negotiation Practices and Firm Performance**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 36.343 | 3 | 12.114 | 48.890 | .000[b] |
| | Residual | 32.956 | 133 | .248 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Styles & approaches, Terms of service, Pricing

**Source: (Field survey, 2025)**

The ANOVA results show that the regression model is statistically significant, $F(3, 133) = 48.890$, $p < .001$, with a regression sum of squares of 36.343 and a mean square of 12.114. The residual sum of squares was 32.956, with a mean square of .248. These results indicate that the model, which includes terms of service, pricing, and styles & approaches as predictors, significantly improves the prediction of firm performance over the mean-only model. Therefore, negotiation practices collectively exert a statistically significant influence on performance outcomes, confirming the importance of strategic negotiation in shaping organizational effectiveness in these institutions.

Model coefficients results were also presented to get the contribution of each independent variable on performance. The regression coefficients table 4.24 therefore presents the effect of negotiation sub-constructs terms of service, pricing, and styles & approaches son the performance of independent offices and commissions in Kenya. The table provides the unstandardized coefficients (B), standardized coefficients (Beta), t-values, and significance levels, which indicate the direction, magnitude, and statistical significance of each predictor's contribution to firm performance.

**Table 4. 25: Coefficients Model Result on Effect of Negotiation practices on performance of Independent offices and Commissions in Kenya**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .959 | .103 | | 9.311 | .000 |
| | Terms of service | .131 | .050 | .203 | 2.62 | .010 |
| | Pricing | .180 | .055 | .304 | 3.273 | .001 |
| | Styles & approaches | .227 | .066 | .315 | 3.439 | .001 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The results show that all three sub-constructs have positive and statistically significant effects on firm performance. Inclusion of terms of service has a coefficient of B = .131, β = .203, t(133) = 2.62, p = .010, indicating that improvements in negotiation of service terms are associated with increases in firm performance, holding other variables constant. Pricing has a coefficient of B = .180, β = .304, t (133) = 3.273, p = .001, suggesting that while holding other variables constant**,** effective negotiation on contractual pricing contributes substantially to firm performance outcomes. Styles & approaches exhibit the strongest effect with B = .227, β = .315, t(133) = 3.439, p = .001, holding other variables constant, reflecting the importance of adopting negotiation styles aligned with procurement objectives. These results demonstrate that each sub-construct significantly contributes to explaining firm performance, supporting the predictive validity of the model.

The associated regression model equation can be expressed as:

**Firm Performance (Y) = 0.959 + 0.131(Terms of Service) + 0.180(Pricing) + 0.227(Styles & Approaches)**

This model indicates that, holding all other factors constant, the baseline performance of independent offices and commissions is 0.959. For each one-unit increase in terms of service negotiation, firm performance is predicted to increase by 0.131 units; for pricing negotiation, performance increases by 0.180 units; and for styles & approaches, performance increases by 0.227 units. Collectively, the equation quantifies the contribution of each negotiation practice, illustrating that structured and strategic negotiation across all three sub-constructs has a measurable and significant positive impact on organizational performance.

The finding show that all three negotiation sub-constructs: terms of service (B=.131, p=.010), pricing (B=.180, p=.001), and styles and approaches (B=.227, p=.001) significantly predict firm performance is a robust finding that makes a strong contribution to procurement management literature in the public sector. The collective explanatory power of the model ($R^2 = .524$) is notably the highest among all individual strategic procurement practices tested in this study, surpassing both sourcing ($R^2 = .181$) and contract management ($R^2 = .311$), which signals that negotiation is the single strongest direct predictor of performance among the strategic procurement practices examined.

The dominance of styles and approaches ($\beta = .315$) over pricing ($\beta = .304$) and terms of service ($\beta = .203$) in the standardized coefficients is theoretically significant. It suggests that how organizations negotiate the procedural and relational dimensions of negotiation matters more than the immediate pricing or service outcomes being negotiated. This is consistent with the theoretical argument advanced by Social Exchange Theory (SET), which emphasizes that the quality of the exchange process including trust-building, fairness, and mutual respect shapes the sustainability of organizational relationships and their impact on performance (Blau, 2002; Cropanzano *et al*., 2017). Negotiation styles that align with procurement objectives and are embedded in formal departmental policies create an institutional environment of structured reciprocity, which SET associates with stronger long-term performance outcomes.

The significance of pricing ($\beta = .304$) further affirms the practical importance of negotiation in public procurement. Independent offices and commissions that invest in ensuring payment consistency with negotiated terms and equip employees with strong negotiation skills realize measurable improvements in cost-related performance dimensions. This is consistent with Chepng'etich (2020) examined the influence of strategic negotiation on performance of devolved systems of government in Kenya, focusing on strategic negotiation on performance. The transferability of this finding to the public sector in Kenya affirms that negotiation is a cross-contextual driver of performance.

The terms of service dimension, while the weakest predictor ($\beta = .203$), is nonetheless significant and represents the relational foundation of supplier engagement. Effective negotiation on payment terms and quality standards creates clear contractual expectations that reduce ambiguity, minimize disputes, and foster collaborative compliance ultimately contributing to timeliness and quality

dimensions of performance. The Collaborative Network Theory (Kapucu & Hu, 2020) supports this interpretation by positioning negotiated agreements as formalized nodes in inter-organizational networks that channel resources and information efficiently. When independent offices and commissions actively negotiate service terms, they are in effect constructing the network architecture through which procurement performance is achieved.

### 4.6.3 Summary model results of effect of Negotiation Practices on Performance of Independent offices and Commissions in Kenya

After conducting a multiple regression analysis to ascertain effect of negotiation practices, the study further carried out a standard simple linear regression analysis in order to achieve objective of the study which stated: to establish effect of negotiation practices on performance of independent offices and Commissions, in Kenya. This model summary regression results presents the overall effect of negotiation as a strategic procurement practice on the performance of independent offices and commissions in Kenya. The analysis examined negotiation as a composite construct encompassing mean elements of terms of service, pricing, and styles & approaches. The model summary provides key indicators of fit, including the multiple correlation coefficient (R), the coefficient of determination ($R^2$), adjusted $R^2$, and the standard error of the estimate, which together assess the strength, explanatory power, and predictive accuracy of the regression model.

**Table 4. 26: Summary Model results on effect of Negotiation Practices on Performance of Independent Offices and Commissions, Kenya**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .721[a] | .520 | .517 | .49624 | .520 | 146.418 | 1 | 135 | .000 |

a. Predictors: (Constant), Negotiation

**Source: (Field survey, 2025)**

The results indicate a strong positive relationship between negotiation and firm performance, with a multiple correlation coefficient of R = .721. The model explains 52.0% of the variance in firm performance ($R^2$ = .520), while the adjusted $R^2$ of .517 accounts for sample size and predictor variables. The standard error of the estimate is .49624, indicating the average deviation of observed performance values from the predicted values. The model is statistically significant, F(1,

135) = 146.418, p < .001, confirming that negotiation, as a combined strategic practice, significantly predicts organizational performance outcomes in these institutions.

The ANOVA results for the regression model examining the effect of negotiation on firm performance assess whether the predictor variable negotiation as a composite construct significantly explains variation in performance among independent offices and commissions in Kenya. This analysis tests the null hypothesis that the regression model does not provide a better prediction of firm performance than a model with no predictors. The table presents the sum of squares, degrees of freedom, mean squares, F-statistic, and significance level, which together determine the overall model fit and statistical significance.

**Table 4. 27: Summary ANOVA Results on Negotiation Practices and Firm Performance-Simple Linear Regression Model**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 36.055 | 1 | 36.055 | 146.418 | .000[b] |
| | Residual | 33.244 | 135 | .246 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Negotiation

**Source: (Field survey, 2025)**

The ANOVA results indicate that the regression model is statistically significant, F(1, 135) = 146.418, p < .001. The regression sum of squares is 36.055, with a mean square of 36.055, while the residual sum of squares is 33.244, with a mean square of .246. These findings confirm that negotiation practices, as measured by terms of service, pricing, and styles & approaches, collectively account for a significant portion of the variance in firm performance. Consequently, the model demonstrates that strategic negotiation is an important determinant of organizational performance in independent offices and commissions in Kenya.

The coefficients table presents the results of the simple linear regression examining the effect of negotiation on the performance of independent offices and commissions in Kenya. It includes the unstandardized coefficients (B), standardized coefficients (Beta), standard errors, t-values, and significance levels, providing information on the strength, direction, and statistical significance of the predictor variable's effect on firm performance.

Summary coefficient model Result on Effect of Negotiation practices on Performance of Independent offices and Commissions, Kenya

**Table 4. 28: Summary coefficient model Result on Effect of Negotiation practices on Performance of Independent offices and Commissions, Kenya**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .963 | .098 | | 9.827 | .000 |
| | Negotiation | .535 | .044 | .721 | 12.159 | .000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The results indicate that negotiation has a strong and statistically significant positive effect on firm performance. The unstandardized coefficient for negotiation is B = 0.535, with a standardized coefficient of $\beta = 0.721$, $t(135) = 12.159$, $p < .001$. This implies that for every one-unit increase in negotiation practices, firm performance is predicted to increase by 0.721 units. The high t-value and significance level confirm that negotiation is a reliable predictor of performance outcomes in these offices and commissions. The associated regression equation can be expressed as:

**Firm Performance = 0.963 + 0.535(Negotiation)**

This model indicates that when negotiation practices are at zero, the baseline firm performance is 0.963. Each one-unit increase in negotiation practices corresponds to an increase of 0.535 units in firm performance, illustrating the substantial impact of negotiation on organizational effectiveness. The equation highlights that enhancing negotiation strategies across terms of service, pricing, and styles & approaches can lead to measurable improvements in performance.

To assess the statistical significance of the observed relationship, hypothesis testing was conducted. The null hypothesis ($H_0$) stated that negotiation does not significantly affect firm performance, while the alternative hypothesis ($H_1$) proposed that negotiation has a significant effect. Based on the regression results, the p-value associated with the negotiation coefficient was less than the significance level, $p < .001$, which is below the $\alpha$ threshold of 0.05. Consequently, the null hypothesis is rejected, confirming that negotiation significantly influences the performance of independent offices and commissions in Kenya. This outcome provides empirical

support for the assertion that strategic negotiation practices are a key determinant of organizational effectiveness. The study results reveal that negotiation practices significantly influence the performance of independent offices and commissions in Kenya. Effective negotiation, characterized by proper planning, communication, persuasion, ethical conduct, and flexibility, was observed to improve procurement outcomes, cost management, supplier relationships, and service delivery. These results resonate strongly with the Relational View Theory, which emphasizes the strategic importance of managing inter-organizational relationships to achieve competitive advantage. Similarly, the Social Exchange Theory explains how mutually beneficial negotiation interactions, grounded in trust and commitment, enhance long-term performance outcomes. Additionally, the Collaborative Network Theory supports the findings by demonstrating that negotiation success is amplified when there is coordination and information sharing among stakeholders, enabling better decision-making and improved organizational efficiency.

Comparing with global and regional empirical studies, the findings are consistent with Chepng'etich (2020) in Kenya, Nwankiti (2023) in Nigeria, and Mwagike & Changalima (2022) in Tanzania, all of whom found that negotiation strategies positively impact firm performance by influencing responsiveness, cost, quality, and relationship management. Locally, studies such as Mgobo, Wairo & Iravo (2019), Charukula & Sama (2024), Nzangi & Wachiuri (2023), and Mutua & Namusonge (2023) indicate that negotiation practices enhance performance outcomes in Kenyan banks, public procurement, and state corporations. However, these studies either focus on specific industries or listed firms and largely ignore independent offices and commissions. The current study addresses these gaps by contextualizing negotiation practices within the procurement framework of independent offices and commissions, while also integrating collaborative capability as a moderating factor.

In conclusion, the study confirms the hypothesis that negotiation practices positively affect organizational performance, particularly when moderated by collaborative capability. Triangulation of theory, empirical studies, and the study findings underscores that negotiation is not merely a transactional activity but a strategic process that enhances supplier relationships, cost efficiency, and overall procurement effectiveness. The study also demonstrates that incorporating collaborative networks and relational management strengthens negotiation outcomes, providing both theoretical and practical evidence for the adoption of structured negotiation frameworks in

independent offices and commissions. This reinforces the value of negotiation as a strategic procurement practice that, when effectively implemented, contributes to improved performance and sustainable organizational advantage.

### 4.7 Overview of Collaborative Capability Practices

The descriptive results are presented in tables showing frequencies (f), percentages (%), means (M), and standard deviations (SD) for each item, followed by computed mean scores for each sub-construct and the overall collaborative capability measure. The mean scores and standard deviations of these variables indicate the extent to which independent offices and commissions exhibit collaborative behaviors that may influence the implementation of strategic procurement practices. This descriptive analysis established the context for understanding how collaborative capability may interact with procurement practices to affect performance.

**Table 4. 29: Descriptive statistics for Collaborative Capability in Independent offices and Commissions, Kenya**

| Communication | SD | D | N | A | SA | M | SD |
|---|---|---|---|---|---|---|---|
| The organization constantly shares information with its external stakeholders | 36(26.3) | 28(20.4) | 37(27) | 19(13.9) | 17(12.4) | 2.66 | 1.34 |
| It is easy for subordinates to reach their supervisors to raise concerns | 33(24.1) | 24(17.5) | 36(26.3) | 22(16.1) | 22(16.1) | 2.82 | 1.39 |
| The organization is open to feedback from external stakeholders | 31(22.6) | 26(19) | 37(27) | 31(22.6) | 12(8.8) | 2.76 | 1.27 |
| Mean and Standard deviation | | | | | | 2.75 | 1.33 |
| **Interdepartmental relationships** | | | | | | | |
| The departments within my organization constantly share relevant information with each other | 30(21.9) | 30(21.9) | 37(27) | 25(18.2) | 15(10.9) | 2.74 | 1.29 |
| There are clear communication channels to respond to information shared from other departments | 23(16.8) | 33(24.1) | 44(32.1) | 25(18.2) | 12(8.8) | 2.78 | 1.19 |
| There is trust and mutual respect by departmental members in the organization in performance of duties | 34(24.8) | 26(19) | 43(31.4) | 19(13.9) | 15(10.9) | 2.67 | 1.29 |
| Mean and Standard deviation | | | | | | 2.73 | 1.26 |
| **Feedback Mechanisms** | | | | | | | |
| The procurement department receives timely communication from user departments on their procurement needs | 33(24.1) | 43(31.4) | 35(25.5) | 20(14.6) | 6(4.4) | 2.44 | 1.14 |
| The procurement department timely communicates with user departments on their procurement needs | 26(19) | 40(29.2) | 45(32.8) | 12(8.8) | 14(10.2) | 2.62 | 1.19 |
| The top management supports operations of the procurement unit through resource allocation and timely approvals | 32(23.4) | 36(26.3) | 37(27) | 17(12.4) | 15(10.9) | 2.61 | 1.27 |
| Mean and Standard deviation | | | | | | 2.56 | 1.2 |

**Source: (Field survey, 2025)**

*KEY: SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree*

Communication as a sub-construct consisted of three items assessing the sharing of information with external stakeholders, ease of access to supervisors, and openness to feedback from external parties. The findings indicated that 36 respondents (26.3%) strongly disagreed, 28 (20.4%) disagreed, 37 (27%) were neutral, 19 (13.9%) agreed, and 17 (12.4%) strongly agreed that their organization constantly shares information with external stakeholders (M = 2.66, SD = 1.34). Regarding ease of reaching supervisors, 33 respondents (24.1%) strongly disagreed, 24 (17.5%) disagreed, 36 (26.3%) were neutral, 22 (16.1%) agreed, and 22 (16.1%) strongly agreed (M = 2.82, SD = 1.39). Finally, the organization's openness to feedback from external stakeholders was reported as strongly disagree (31, 22.6%), disagree (26, 19%), neutral (37, 27%), agree (31, 22.6%), and strongly agree (12, 8.8%) (M = 2.76, SD = 1.27). The computed mean and standard deviation for communication as a sub-construct were 2.75 and 1.33, respectively. These findings suggest that communication within these organizations is moderate, with a balance of disagreement and agreement responses across items.

Interdepartmental relationships captured the internal flow of information and mutual respect among departmental members. On the item measuring constant information sharing between departments, 30 respondents (21.9%) strongly disagreed, 30 (21.9%) disagreed, 37 (27%) were neutral, 25 (18.2%) agreed, and 15 (10.9%) strongly agreed (M = 2.74, SD = 1.29). For clear communication channels between departments, 23 respondents (16.8%) strongly disagreed, 33 (24.1%) disagreed, 44 (32.1%) were neutral, 25 (18.2%) agreed, and 12 (8.8%) strongly agreed (M = 2.78, SD = 1.19). Regarding trust and mutual respect among departmental members, 34 respondents (24.8%) strongly disagreed, 26 (19%) disagreed, 43 (31.4%) were neutral, 19 (13.9%) agreed, and 15 (10.9%) strongly agreed (M = 2.67, SD = 1.29). The mean and standard deviation for the interdepartmental relationships sub-construct were 2.73 and 1.26, indicating that interdepartmental collaboration is moderate but slightly stronger than feedback mechanisms.

Feedback was examined through the procurement department's communication timeliness and top management support. The item on receiving timely communication from user departments indicated strong disagreement (33, 24.1%), disagreement (43, 31.4%), neutral (35, 25.5%), agreement (20, 14.6%), and strong agreement (6, 4.4%) (M = 2.44, SD = 1.14). Timely communication from the procurement department to user departments was rated strongly disagree (26, 19%), disagree (40, 29.2%), neutral (45, 32.8%), agree (12, 8.8%), and strongly agree (14,

10.2%) (M = 2.62, SD = 1.19). Support from top management through resource allocation and timely approvals was reported as strongly disagree (32, 23.4%), disagree (36, 26.3%), neutral (37, 27%), agree (17, 12.4%), and strongly agree (15, 10.9%) (M = 2.61, SD = 1.27). The mean and standard deviation for the feedback sub-construct were 2.56 and 1.20, indicating relatively lower levels of agreement compared to communication and interdepartmental relationships.

The overall collaborative capability across all nine items had a mean of 2.68 and a standard deviation of 1.26. This suggests that, generally, the offices and commissions moderately engage in collaborative practices, with slightly higher engagement in communication and interdepartmental relationships than in feedback mechanisms. The descriptive findings provide a baseline understanding of how collaborative capability was manifested within the organizations and set the stage for further analysis of its moderating effect on the relationship between strategic procurement practices and organizational performance.

### 4.7.1 Summary descriptive results for Collaborative Practices

The summary analysis was executed to establish the difference mean rating on the various sub variables of negotiation practices. The findings on the sub variables are displayed in Table 4.29 as presented:

**Table 4. 30: Summary descriptive results for Collaborative Capability Practices**

| Firm performance | Mean | STD |
|---|---|---|
| Communication practices | 2.748 | 1.333 |
| Interdepartmental relationships | 2.729 | 1.259 |
| Feedback mechanisms | 2.558 | 1.201 |
| **Overall Mean CC** | **2.679** | **1.261** |

**Source: (Field survey, 2025)**

*KEY: STD-Standard Deviation, CC-Collaborative Capability*

The summary findings for collaborative capability reveal a uniformly low adoption across all three sub-constructs: communication (M=2.748), interdepartmental relationships (M=2.729), and feedback mechanisms (M=2.558), all falling below the neutral midpoint of 3.0. The consistently low means signal a systemic deficit in collaborative culture within independent offices and commissions in Kenya. Communication registered the highest mean, suggesting a relative advantage in information-sharing and stakeholder accessibility compared to the other dimensions. Yet, this advantage is marginal and insufficient for effective inter-organizational collaboration.

Feedback mechanisms recorded the lowest mean (M=2.558), which is a particularly important finding given the centrality of feedback in procurement performance management. When the procurement department does not receive timely inputs from user departments (M=2.44) and when top management fails to allocate adequate resources and approvals (M=2.61), the entire procurement process is disrupted leading to delays, inefficiencies, and misaligned supplier engagements. This resonates with Power (2014), who found that collaborative capability directly improved quality and operational performance in Australian manufacturing firms, and with Ping *et al*. (2018), who established that without adequate information flow and collaboration, public firms in Malaysia failed to achieve their targets. For Kenya's independent offices and commissions, the low collaborative capability profile explains, at least in part, the persistently low performance scores documented across performance dimensions (M=2.63). Strengthening feedback loops and interdepartmental communication would therefore be a high-return intervention for performance improvement.

### 4.7.2 Effect of collaborative capability on performance of Independent offices and Commissions, Kenya

Prior to ascertaining effect of collaborative capability practices on performance, the study first examined the association between the sub-constructs of collaborative capability i.e. communication, interdepartmental relationships, and feedback mechanisms, and the performance of Independent offices and commissions in Kenya using Pearson product-moment correlation analysis. This analysis was intended to determine the strength and direction of the linear associations between each moderator aspect and firm performance. The results are presented in Table 4.30, showing the correlation coefficients (r), significance levels (p-values), and sample size (N = 137). The correlations were interpreted using a significance level of 0.01 for strong evidence of association, while 0.05 indicated moderate evidence.

**Table 4. 31: Correlation between Collaborative Capability and Operational performance of Independent offices and commissions, Kenya**

| | | Firm Performance | Communication | Interdepartmental relationships | Feedback |
|---|---|---|---|---|---|
| Firm Performance | Pearson Correlation | 1 | .636** | .542** | .558** |
| | Sig. (2-tailed) | | .000 | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Communication | Pearson Correlation | .636** | 1 | .479** | .402** |
| | Sig. (2-tailed) | .000 | | .000 | .000 |
| | N | 137 | 137 | 137 | 137 |
| Interdepartmental relationships | Pearson Correlation | .542** | .479** | 1 | .209* |
| | Sig. (2-tailed) | .000 | .000 | | .014 |
| | N | 137 | 137 | 137 | 137 |
| Feedback | Pearson Correlation | .558** | .402** | .209* | 1 |
| | Sig. (2-tailed) | .000 | .000 | .014 | |
| | N | 137 | 137 | 137 | 137 |

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

**Source: (Field survey, 2025)**

From the results in table 4.30, communication demonstrated a strong positive correlation with firm performance ($r = .636$, $p < .001$), suggesting that organizations that consistently share information with external stakeholders and ensure ease of access between supervisors and subordinates tend to achieve higher performance outcomes. This indicates that effective communication is a critical component of collaborative capability, supporting transparency, timely information flow, and informed decision-making across the organization. Additionally, communication correlated positively with interdepartmental relationships ($r = .479$, $p < .001$) and feedback ($r = .402$, $p < .001$), reflecting the interconnectedness of collaborative practices whereby strong communication enhances both internal coordination and timely feedback mechanisms.

Interdepartmental relationships showed a moderate positive correlation with firm performance ($r = .542$, $p < .001$). This suggests that frequent sharing of relevant information, trust, and mutual respect among departmental members contributes meaningfully to organizational outcomes. The correlation between interdepartmental relationships and feedback was weaker but significant ($r = .209$, $p = .014$), indicating that while departments may collaborate internally, the translation of this collaboration into structured feedback processes is less pronounced. These results highlight the role of internal collaboration in fostering operational efficiency and supporting performance, though its impact is not as strong as communication.

Feedback also exhibited a significant positive correlation with firm performance ($r = .558$, $p < .001$), emphasizing the importance of timely communication between procurement units, user departments, and top management support in driving organizational outcomes. Feedback was moderately associated with communication ($r = .402$, $p < .001$) and weakly with interdepartmental relationships ($r = .209$, $p = .014$), suggesting that timely responses and resource support reinforce overall collaborative capability. Overall, these findings indicate that all sub-constructs of collaborative capability are significantly related to firm performance, with communication showing the strongest association, followed by feedback and interdepartmental relationships, providing empirical support for the role of collaborative practices in enhancing organizational effectiveness.

After establishing correlation between Collaborative Capability Practices and performance, the study then established the effect of collaborative capability on performance of Independent Offices and Commissions in order to achieve objective four of the study and hence ascertain hypothesis four that was set:

*H04: Collaborative capability has no significant effect on the operational performance of independent offices and commissions in Kenya.*

In order to achieve this both multiple regression and linear regression modelling were made use to scrutinize collected field data. The table 4.31 presents a summary of multiple regression analysis conducted to examine the effect of collaborative capability practices on performance of the Independent Offices and Commissions in Kenya. The analysis included three predictor variables (Communication, Interdepartmental relationships and Feedback) and the outcome variable (Operational performance). The model formulated as follows:

$$\gamma_i = \beta_0 + \beta_1 X_{41i} + \beta_2 X_{42i} + \beta_3 X_{43i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(vii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

The findings are presented as shown in Table 4.32.

**Table 4. 32: Model Result on Effect of Collaborative capability practices on performance of Independent offices and Commissions, Kenya**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .764a | 0.583 | 0.574 | 0.46612 | 0.583 | 61.984 | 3 | 133 | 0.000 |

a Predictors: (Constant), Feedback, Interdepartmental relationships, Communication

**ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 40.4022 | 3 | 13.46741271 | 61.98421 | .000[b] |
| | Residual | 28.8971 | 133 | 0.217271661 | | |
| | Total | 69.2994 | 136 | | | |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Feedback, Interdepartmental relationships, Communication

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 0.58697 | 0.11537 | | 5.0877 | 0.000 |
| | Communication | 0.23229 | 0.04525 | 0.34983 | 5.1334 | 0.000 |
| | Interdepartmental relationships | 0.23389 | 0.04973 | 0.30016 | 4.7032 | 0.000 |
| | Feedback | 0.24932 | 0.04302 | 0.35445 | 5.7954 | 0.000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The model summary in Table 4.31 indicate that the three predictors cooperatively explained 58.3% of variance in performance (R2 =.583, Adjusted R2 =.574, Std. Error=.466). The R2 change was statistically significant F (3, 133=61.984, P<.000), this indicating that communication, interdepartmental relationships and feedback reliably predicted the performance of the organizations.

The findings therefore attune that collaborative capability practices collectively had a significant influence on the performance of independent offices and commissions in Kenya. The R2 change

of .583 confirms that the presence of communication, interdepartmental relationships and feedback significantly improves the model's explanatory power compared to a model without the predictors. While the model explains 58.3% of the variance, 41.7% remains accounted for by other factors that are not included in the analysis, indicating that performance is multidimensional. However, the statistically significant F-test demonstrated that combined effect of the three collaborative capability sub-constructs had s positive significant effect on performance.

The ANOVA results show that the regression model is statistically significant F (3, 133=61.984), P<.000, with a regression sum of squares of 40.402 and a mean of 13.467. The residual sum of squares was 28.871, with a mean square of 0.217. The results deduce that the model, which includes communication, interdepartmental relationships and feedback as the predictors, significantly improves the prediction of performance over the mean-only model. Thus, collaborative capability jointly exerts statistically significant effect on performance outcomes, confirming the significance of collaborative capability in regards to the effectiveness of the organization.

The regression coefficient were examined to ascertain the individual effect of each collaborative capability practice: communication, interdepartmental relationship and feedback on performance. Results from the above table 4.31 show that communication had a positive statistical significant effect on performance (B=0.232, SE=0.045, t=5.133, $\beta$=0.349, P<.000), indicating that a unit increase in communication practices is associated with a 0.232 unit increase in performance, holding other variables constant. Interdepartmental relationships also demonstrated a positive and statistically significant effect on performance (B=0.234, SE=0.049, t=4.703, $\beta$=0.300, P<.000) deducing that a unit increase in interdepartmental relationship is associates with a 0.234 unit increase in performance while holding other variables constant.

The results further points out that feedback practices had a statistically positive significant effect on performance with coefficients of (B=0.249, SE=0.043, t=5.795, $\beta$=0.354, P<.000), suggesting that effective collaborative capability on feedback practices contributes substantially to performance, holding other variables constant.

The associated regression model equation can be expressed as:

**Performance (γ) =0.587 + 0.232(Communication) + 0.234(Interdepartmental Relationship) + 0.249(Feedback).**

This model allude that, holding all other factors constant, the baseline performance of independent offices and commissions is at 0.587. For each one-unit increase of communication, firm performance is predicted to increase by 0.232 units; for interdepartmental relationship, performance increases by 0.234 units and for feedback, performance increases by 0.249 units. Overall, the equation demonstrates that communication, interdepartmental relationship and feedback are the main drivers of firm performance among the three collaborative capability practices included in the model.

The findings that communication (B=0.232, $\beta$=0.349, P<.000), interdepartmental relationship (B=0.234, $\beta$=0.300, P<.000) and feedback (B=0.249, $\beta$=0.354, P<.000), can be richly interpreted through theoretical lenses supporting this study. Relational view Theory supports the significance of communication (B=0.232, $\beta$=0.349, P<.000), whereby the theory argues that communication mechanisms constitute a rational asset that reduces information asymmetry and facilitates knowledge exchange between partners (Dyer & Sing, 1990), in the context of independent offices and commissions, clear communication with stakeholders, suppliers and user departments minimizes procurement errors and delays thereby improving performance.

From the results on interdepartmental relationships (B=0.234, $\beta$=0.300, P<.000), which emerged as a significant sub-construct, indicate that strong working relationships across departments contribute to better performance. Social Exchange Theory explained this, which points out that organizations build social capital through trust, reciprocity and mutual obligation. Procurement units maintain positive interdepartmental relationships when they are able to coordinate resources and activities more effectively translating to improved operational efficiency. Thus, the findings aligns with SET's assertion that relational quality drives organizational outcome (Blau, 2002).

Feedback (B=0.249, $\beta$=0.354, P<.000), was like-wise positive and significant. This implies that the use of feedback mechanism in collaborative capability processes leads to improved performance of independent offices and commissions. Feng and Lihua (2021) point out that feedback is a core dimension of collaborative capability because it enables organizations to monitor, evaluate and refine activities jointly. They argued that timely and constructive feedback

improves coordination, reduces misunderstandings and enhances learning within collaborative networks, which untimely results in superior performance. Therefore. The significant effect of feedback in this study aligns with Feng and Lihua (2021) assertion that feedback is essential for sustaining and improving collaborative performance.

In conclusion, the regression analysis results demonstrated on collaborative capability collectively influenced performance with all sub-constructs emerging significant predictors. The findings are consistent with Relational View Theory, Social Exchange Theory and a study by Feng and Lihua (2021), which together highlight that relational, social and learning based processes are central to achieving collaborative advantage in independent offices and commissions in Kenya.

### 4.7.3 Summary model results of effect of Collaborative Capability Practices on Performance of Independent offices and Commissions in Kenya.

From the results in Table 4.31, it can be deduced that all of Collaborative Capability practice elements had positive statistical significant effect on performance of Independent Offices and Commissions in Kenya. In order to examine the overall effect of Collaborative Capability practices on performance and whether indeed Collaborative Capability practices had significant effect on performance, the researcher carried out standard simple linear regression analysis, pitting performance against all mean elements of Collaborative Capability practices. Table 4.32 presents the model summary, ANOVA and coefficients for the analysis. The data were analyzed using SPSS, with mean elements of Collaborative Capability as single independent variable and performance as the dependent variable.

Standard linear model regression analysis was also fixed to ascertain effect of collaborative capability practices on performance, involving regressing performance against the mean elements of collaborative capability practices. The linear regression model involved using performance (dependent variable) as the outcome variable and the predictor variable of the mean elements of Collaborative capability (independent variable). The model formulated as follows:

$$\gamma_i = \beta_0 + \beta_4 X_{4i} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(viii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

Results are presented in terms of model fit, statistical significance and regression coefficients to provide a comprehensive view of the relationship.

**Table 4.33: Summary model results of effect of Collaborative Capability Practices on Performance of Independent offices and Commissions in Kenya**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .745[a] | 0.55548 | 0.55219 | 0.477686 | 0.555481 | 168.699 | 1 | 135 | 0.000 |

a. Predictors: (Constant), Mean_Collaborative_Capability

**ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 38.4945 | 1 | 38.49450094 | 168.6992 | .000[b] |
| | Residual | 30.8049 | 135 | 0.228184208 | | |
| | Total | 69.2994 | 136 | | | |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Mean_Collaborative_Capability

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 0.49577 | 0.1252699 | | 3.957614 | 0.000 |
| | Collaborative _capability | 0.75819 | 0.0583745 | 0.745306153 | 12.98837 | 0.000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The model summary results in Table 4.32 indicate a positive relationship between collaborative capability and firm performance (R=.745). The coefficient of determination shows that collaborative capability explains 55.5% of the variance in performance ($R^2$ =.555), with an adjusted $R^2$=.552, denoting that 55.2% of the variation in performance is accounted for after adjusting for sample size. The standard error of estimate was .477686, reflecting the average deviation of observed values from the regression line.

The overall regression model was statistically significant, F(1, 1335)= 168.699, P<.000, demonstrating that collaborative capability significantly predicts firm performance. The $R^2$ change=.555 confirms that the inclusion of collaborative capability in the model significantly

improves the prediction of firm performance compared to a model without predictors. These findings indicate that collaborative capability has statistically significant and meaningful effect on firm performance on these independent offices and commissions in Kenya. ANOVA was performed to assess the overall significance of the standard simple linear regression model examining effect of collaborative capability on firm performance as shown in Table 4.32.

The ANOVA results indicate that the regression model is statistically significant F(1, 1335) = 168.699, P<.000. The regression sum of squares is 38.4945, with a mean square of 38.4945, while the residual sum of squares 30.8049, with a mean square of .228. These findings confirm that collaborative capability practices, as measured by communication, interdepartmental relationships and feedback collectively account for a significant portion of the variance in firm performance. Accordingly, the model demonstrates that collaborative capability is an important determinant of firm performance in independent offices and commissions in Kenya.

The coefficients presents results of simple linear regression examining the effect of collaborative capability on the performance of independent offices and commissions in Kenya. It includes the unstandardized coefficients, standardized coefficients, standard errors, t-values and significance levels are reported to determine the magnitude and statistical significance of the predictor variable's effect on performance.

The results indicate that collaborative capability has a statistically positive significant effect on firm performance. The unstandardized coefficient for collaborative capability is B=0.758, with a standard coefficient of $\beta$=0.758, t (135) =12.98837, P<.000. This implies that for every one-unit increase in collaborative capability practices, firm performance is predicted to increase by 0.758 units. The high t-value and significance level confirm that collaborative capability is a reliable predictor of performance outcomes in these independent offices and commissions. The associated regression equation can be expressed as:

**Firm Performance= 0.496 + 0.758 (Collaborative Capability)**

The model equation indicates that when collaborative capability is at zero, firm performance is predicted to be 0.496. The slope coefficient (B=.758) shows that one-unit increase in collaborative capability leads to a .496 units increase in performance. This positive coefficient confirms a direct relationship between collaborative capability and performance. The magnitude of the coefficient

suggests that improvements in collaborative capability practices are associated with substantial increases in firm performance.

The finding that collaborative capability has a positive and statistically significant effect on operational performance indicates that organizations with stronger capacities to coordinate, communicate, and build strategic partnerships are more likely to achieve superior operational outcomes. This finding concurs with Waardenburg, Groenleer and Jong (2025), who contend that collaborative capability enables organizations to effectively mobilize resources, coordinate inter-organizational activities and enhance institutional effectiveness. The convergence of the two studies suggests that collaboration functions as a strategic organizational capability that facilitates the integration of diverse knowledge, expertise and stakeholder interests into organizational processes. Within Independent Offices and Commissions in Kenya, effective collaboration is likely to improve procurement coordination, reduce information asymmetries, and promote timely decision-making, thereby enhancing operational efficiency. The findings further imply that collaboration strengthens organizational flexibility and responsiveness to emerging challenges through collective problem-solving and continuous learning. This reinforces the dynamic capabilities perspective, which posits that organizations possessing superior collaborative capabilities are better able to reconfigure resources to respond to changing operational environments. Therefore, the significant positive effect observed in this study demonstrates that collaborative capability is not merely a relational attribute but a strategic resource that contributes directly to improved operational performance.

The positive relationship between collaborative capability and operational performance is also consistent with the findings of Gautam, Poudel and Bahadur (2025), who established that collaborative capability enhances organizational efficiency through knowledge sharing, coordinated decision-making, and innovation. The similarity in findings suggests that organizations derive substantial performance benefits when they develop systems that encourage collaboration across functional units and external stakeholders. In the context of Independent Offices and Commissions in Kenya, collaborative capability appears to facilitate the integration of procurement activities with broader organizational objectives, thereby improving service delivery and operational effectiveness. The significant effect may be explained by the ability of collaboration to reduce coordination costs, improve information quality, and enhance collective

problem-solving, which are essential for efficient procurement and operational processes. Furthermore, collaborative capability encourages mutual trust and resource complementarities that enable organizations to overcome operational constraints more effectively. These findings lend empirical support to the resource-based view by demonstrating that collaborative capability represents a valuable, rare, and difficult-to-imitate organizational resource capable of generating sustainable improvements in operational performance. Consequently, public institutions should strengthen collaborative mechanisms to maximize organizational effectiveness.

The present findings also corroborate Onyango (2025), who found that collaborative capability significantly improves organizational performance within Kenyan public institutions by strengthening communication, trust, stakeholder engagement, and institutional coordination. The consistency between the two studies may be attributed to the shared public sector context, where organizations operate within complex governance structures that require extensive collaboration among internal departments, regulatory agencies, suppliers, and other stakeholders. The significant positive effect observed in this study indicates that collaborative capability enhances the implementation of strategic procurement practices by facilitating timely information exchange, joint planning, and coordinated execution of organizational activities. Such collaborative processes reduce duplication of effort, minimize operational delays, and improve accountability in resource utilization, all of which contribute to enhanced operational performance. From a theoretical perspective, these findings affirm the relational view, which argues that organizations create superior value and competitive advantage through collaborative relationships rather than through internal resources alone. Therefore, strengthening collaborative capability should be regarded as a strategic priority for Independent Offices and Commissions in Kenya because it enables institutions to achieve greater efficiency, responsiveness and overall operational performance in an increasingly interconnected public sector environment.

The study established that collaborative capability had a positive and statistically significant effect on the operational performance of Independent Offices and Commissions in Kenya, implying that stronger collaboration enhances organizational customer service, quality practices, timeliness and cost reduction. The findings indicate that organizations with well-developed collaborative capabilities are better able to coordinate resources, integrate stakeholder efforts, and adapt to changing operational environments. Effective collaboration promotes knowledge sharing,

innovation, trust, communication, and coordinated decision-making, which collectively improve operational efficiency and organizational effectiveness. Overall, the findings underscore the importance of fostering collaborative capability as a key driver of enhanced performance in Kenya's Independent Offices and Commissions.

Therefore, based on these results, the null hypothesis (H0) that collaborative capability practices do not significantly affect firm performance was rejected in favor of the alternative hypothesis (H1). The findings demonstrated that overall collaborative capability practices, when considered as a single construct, was significantly associated with performance in independent offices and commissions in Kenya. The findings provide empirical support for the importance of adopting collaborative capability practices to enhance the firm performance.

### 4.8. Moderating effect of collaborative capability on the relationship between Strategic Procurement Practices and Operational Performance of Independent offices and Commissions, Kenya

The fourth objective of this study sought to determine whether collaborative capability moderates the relationship between strategic procurement practices and the performance of independent offices and commissions in Kenya. Moderation analysis allows for the assessment of whether the strength or direction of the relationship between an independent variable and a dependent variable changes depending on the level of a third variable, in this case, collaborative capability. The independent variable in this analysis comprised strategic procurement practices, (including sourcing practices, contract management practices, and negotiation practices), while the dependent variable was organizational performance. Collaborative capability is conceptualized as a multidimensional construct encompassing communication, interdepartmental relationships and feedback mechanisms which may influence the effectiveness of procurement practices on performance outcomes.

Prior to moderation analysis, descriptive statistics were computed for the collaborative capability sub-constructs to provide an overview of their distribution among the sampled offices commissions. Communication, interdepartmental relationships, and feedback mechanisms were each measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Collaborative capability was measured using three sub-constructs: communication, interdepartmental relationships, and feedback. Communication focused on the organization’s

ability to share information with external stakeholders and the ease of access between subordinates and supervisors. Interdepartmental relationships captured the sharing of relevant information, trust, and respect among departments, while feedback emphasized the timeliness and adequacy of communication between procurement units, user departments, and top management support. Data for each item were collected using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

### 4.8.2. Effect of strategic procurement practices on the operational performance

To test the moderation effect, moderated hierarchical regression was employed following the three-step procedure outlined by Field (2005) and (Baron and Kenny, 1986; Arnold, 1982; Bhandari & Srivastava, 2025). In the first step, organizational performance ($Yi$) was regressed on strategic procurement practices ($X1i$) to estimate the direct effect. This was guided by the equation:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \varepsilon_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(i)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

The effect of strategic procurement practices on the performance of independent offices and commissions in Kenya was assessed using simple linear regression. The analysis aimed to determine the extent to which strategic procurement practices, measured as an aggregate of sourcing practices, contract management practices and negotiation practices, predict organizational performance. The results were evaluated through model summary statistics, analysis of variance (ANOVA), and regression coefficients, with significance determined at p = 0.05. The Model Summary provides the overall explanatory power of the regression model, the ANOVA table tests the model's overall significance, and the coefficients table presents the magnitude and significance of the relationship between strategic procurement practices and firm performance. The results are presented in Table 4. 34:

**Table 4. 34: Model results on Strategic Procurement Practices and operational performance of Independent offices and commissions, Kenya**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .728[a] | .529 | .526 | .49157 | .529 | 151.781 | 1 | 135 | .000 |

a. Predictors: (Constant), Strategic procurement practices

**ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 36.677 | 1 | 36.677 | 151.781 | .000[b] |
| | Residual | 32.622 | 135 | .242 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Strategic procurement practices

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .731 | .114 | | 6.412 | .000 |
| | Strategic procurement practices | .646 | .052 | .728 | 12.423 | .000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The Model Summary results indicate that strategic procurement practices is strongly associated with firm performance, with a correlation coefficient (R=.728), demonstrating a positive linear association. The coefficient of determination ($R^2$ = .529) suggested that approximately 52.9% of the variance in firm performance is explained by strategic procurement practices. The adjusted $R^2$ (.526) accounted for the number of predictors in the model, confirming that over half of the variation in organizational performance can be attributed to the strategic procurement practices implemented by the Independent offices and Commissions under study. The standard error of the estimate (.49157) reflected the average distance that the observed performance scores deviate from the regression line, indicating an acceptable level of prediction accuracy.

The ANOVA results further supported the model's significance. The regression sum of squares (36.677) relative to the residual sum of squares (32.622) yielded an F-statistic of 151.781, which was significant at $p < .001$. This result indicates that the model provides a better fit to the data than a model with no predictors, confirming that strategic procurement practices have a statistically significant effect on firm performance. The high F-value demonstrates that the observed variation

explained by the regression is substantial compared to the unexplained variation, validating the predictive capability of the model for organizational performance outcomes.

The regression coefficients revealed the specific relationship between strategic procurement practices and performance. The unstandardized coefficient (B = .646, SE = .052, $p < .001$) indicates that for every one-unit increase in the strategic procurement practices score, firm performance increases by .646 units, holding all else constant. The standardized coefficient (Beta = .728) confirms that strategic procurement practices are a strong predictor of performance, with a substantial standardized effect size. The constant (intercept) of .731 ($p < .001$) represents the expected performance level when strategic procurement practices are absent, providing a baseline for interpreting the effect of the predictor. The model equation derived from the regression analysis is expressed as:

$$Y_i = 0.731 + 0.646X_{1i}$$

where $Y_i$represents firm performance, $X_{1i}$is the measure of strategic procurement practices, 0.731 is the constant, 0.646 is the regression coefficient indicating the change in performance per unit increase in the predictor, and $\epsilon_i$is the error term. The equation confirms a direct, positive, and significant relationship between strategic procurement practices and firm performance, demonstrating that improvements in procurement sourcing, contracting, and negotiation systematically enhance the performance of independent offices and commissions. The high $R^2$ and significant F-statistic underscore the explanatory and predictive power of the model within this institutional context.

The finding that strategic procurement practices explain 52.9% of the variance in firm performance ($R^2 = .529$) and have a strong standardized coefficient ($\beta = .728$) represents the most comprehensive empirical evidence in this study of the critical role that procurement plays in shaping organizational effectiveness in Kenya's independent offices and commissions. This result substantially exceeds the individual contributions of sourcing ($R^2 = .181$), contract management ($R^2 = .311$), and negotiation ($R^2 = .520$) practices when tested separately, demonstrating the synergistic power of treating procurement as an integrated strategic construct.

Theoretically, this finding aligns squarely with the Relational View Theory (Dyer & Singh, 1990; Dyer, Singh & Hesterly, 2018), which posits that competitive advantage is derived not solely from

internal firm resources but from the quality and structure of inter-organizational relationships cultivated through procurement activities. When independent offices and commissions engage in strategic sourcing, administer contracts rigorously, and negotiate effectively with suppliers, they operationalize the relational capabilities identified by the Relational View as sources of sustained organizational advantage. The aggregate effect of these three practices are reflected in the combined $R^2$ of .529 validates the theory's assertion that relational capital, when systemically developed across sourcing, contracting, and negotiation functions, generates performance outcomes that exceed what any single practice could produce in isolation.

The Social Exchange Theory (Blau, 2002; Cropanzano *et al*., 2017) further illuminates this finding. The theory's central argument that sustained reciprocal exchanges grounded in trust, fairness, and mutual commitment drive positive organizational outcomes that aligns directly with how strategic procurement practices operate. Sourcing practices that involve supplier evaluation and development build trust and reduce relational uncertainty. Contract management practices that ensure transparency in planning and documentation reinforce fairness and predictability. Negotiation practices that align payment terms, pricing, and approaches with organizational objectives create environments of structured reciprocity. Together, these dimensions create the exchange ecosystem within which strong performance emerges. The significant B = .646 indicating that each unit increase in strategic procurement practices yields a .646 unit increase in performance quantifies the practical importance of investing in procurement as an integrated strategic function.

Additionally, the Collaborative Network Theory (Kapucu & Hu, 2020; Wang & Hu, 2020) provides structural support for this aggregated result. When sourcing, contract management, and negotiation are practiced collectively and in alignment, they constitute a coordinated supply network, one that is governed by shared information, formalized agreements and continuously refined through negotiation through which directly enhances organizational performance. The F-statistic of 151.781, with $p < .001$, confirms that the model is far more powerful than chance, reflecting the genuine systemic contribution of strategic procurement to the performance of independent offices and commissions.

### 4.8.3 Effect of Strategic Procurement Practices, Collaborative Capability and Operational Performance of Independent offices and Commissions, Kenya

In the second step, collaborative capability ($Mi$) was included in the model to assess its independent contribution to performance as shown in the following equation:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_m M_i + \varepsilon_i \ldots\ldots\ldots\text{(ii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

This second stage examined the incremental effect of collaborative capability on the relationship between strategic procurement practices and firm performance in Independent offices and Commissions in Kenya. This stage involved hierarchical multiple regression, where strategic procurement practices were entered into the model first, followed by collaborative capability in the second step to assess its additional contribution to explaining variance in firm performance. The analysis was conducted using standard regression procedures, and results are presented through the Model Summary and regression coefficients tables, highlighting both the change in explanatory power ($R^2$ change) and the significance of the predictors (see Table 4.35)

**Table 4. 35: Model results on Strategic Procurement Practices, Collaborative capability and Operational performance of Independent offices and Commissions, Kenya**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics R Square Change | F Change | df1 | df2 | Sig. F Change |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .728[a] | .529 | .526 | .49157 | .529 | 151.781 | 1 | 135 | .000 |
| 2 | .819[b] | .671 | .666 | .41229 | .142 | 57.915 | 1 | 134 | .000 |

a. Predictors: (Constant), Strategic procurement practices

b. Predictors: (Constant), Strategic procurement practices, Collaborative capability

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .731 | .114 | | 6.412 | .000 |
| | Strategic procurement practices | .646 | .052 | .728 | 12.423 | .000 |
| 2 | (Constant) | .271 | .113 | | 2.398 | .018 |
| | Strategic procurement practices | .384 | .056 | .432 | 6.857 | .000 |
| | Collaborative capability | .487 | .064 | .479 | 7.609 | .000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

In the first step, strategic procurement practices alone significantly predicted firm performance. The Model Summary indicated an R of .728, with an $R^2$ of .529, suggesting that 52.9% of the variance in firm performance is explained solely by strategic procurement practices. The model was statistically significant $F(1, 135) = 151.781$, $p < .001$), demonstrating that the predictor reliably accounts for a substantial portion of the performance variance. The regression coefficient for strategic procurement practices ($B = .646$, $SE = .052$, $Beta = .728$, $p < .001$) indicated a strong positive relationship, implying that an increase in strategic procurement practices corresponds to an increase in firm performance.

In the second step, collaborative capability was added to the regression model to evaluate its moderating effect. The combined model showed an R of .819 and an $R^2$ of .671, indicating that the addition of collaborative capability accounted for an incremental $R^2$ change of .142, which was statistically significant (F change = 57.915, $p < .001$). This demonstrates that collaborative capability significantly improves the model's predictive power, explaining an additional 14.2% of

the variance in firm performance beyond what is explained by strategic procurement practices alone. The increase in $R^2$ confirms that collaborative capability plays a substantial role in enhancing firm performance in conjunction with strategic procurement practices.

The regression coefficients for the second model indicate that both strategic procurement practices (B = .384, SE = .056, Beta = .432, p < .001) and collaborative capability (B = .487, SE = .064, Beta = .479, p < .001) are significant positive predictors of firm performance. The constant term (B = .271, p = .018) represents the expected performance when both predictors are at zero. The standardized coefficients suggest that collaborative capability has a slightly stronger effect on firm performance than strategic procurement practices, highlighting its critical role in organizational outcomes. The resulting moderated regression model equation can be expressed as:

$$Y_i = 0.271 + 0.384X_{1i} + 0.487M_i$$

where $Y_i$denotes firm performance, $X_{1i}$represents strategic procurement practices, $M_i$is collaborative capability, and $\epsilon_i$is the error term. The equation confirms that both predictors independently and positively contribute to firm performance, while the significant $R^2$ change indicates that collaborative capability enhances the effect of strategic procurement practices on performance. These findings support the role of collaborative capability as a key factor in improving organizational outcomes through strategic.

### 4.8.4 Collaborative Capability, Strategic Procurement Practices and Operational Performance in Independent offices and Commissions, Kenya

In the 3rd final step, the interaction term between strategic procurement practices and collaborative capability ($M_i \times X_{1i}$) was introduced in the third step to evaluate moderation. This is calibrated in the equation:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_m M_i + \beta_{int}(X_{1i} \times M_i) + \varepsilon_i \ldots\ldots\ldots \text{(iii)}$$

**Source: (Field, 2005; Saunders *et al*, 2015; Kothari, 2014)**

In these equations, $\beta 0$ represents the model constant, $\beta 1$ denotes the regression coefficient for strategic procurement practices, $\beta$m represents the effect of collaborative capability, and $\beta$int captures the interaction effect indicating moderation. The inclusion of the moderator and interaction term enables the examination of changes in $R^2$, which quantifies the proportion of

variance in organizational performance explained by the predictors. An increase in $R^2$ following the inclusion of the interaction term would suggest that collaborative capability significantly moderates the relationship between strategic procurement practices and performance.

The significance of the interaction coefficient ($\beta_{int}$) provides the statistical basis for testing the moderation hypothesis. A significant coefficient indicates that collaborative capability either enhances or attenuates the effect of strategic procurement practices on performance, depending on its level, whereas a non-significant coefficient implies that the effect of procurement practices is consistent regardless of collaborative capability. By combining descriptive statistics of the moderator with hierarchical regression results, the analysis ensures both a contextual and empirical understanding of how communication, interdepartmental relationships, and feedback influence the relationship between strategic procurement practices and performance outcomes in independent offices and commissions.

This hierarchical regression framework allows for a detailed interpretation of the relationships among strategic procurement practices, collaborative capability, and organizational performance. Specifically, it distinguishes between direct effects, moderator effects, and interaction effects within a single model. The observed changes in $R^2$ and the significance of $\beta$int provide a robust empirical test of the moderation hypothesis, enabling the researcher to determine whether collaborative capability strengthens, weakens, or has no effect on the influence of strategic procurement practices on firm performance. Consequently, this approach supports a rigorous examination of the role of collaborative capability as a contextual factor in strategic procurement management. The findings are presented as shown in Table 4.36.

**Table 4. 36: Model results on Strategic Procurement Practices and Collaborative capability on operational performance of Independent offices and Commissions, Kenya**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .728[a] | .529 | .526 | .49157 | .529 | 151.781 | 1 | 135 | .000 |
| 2 | .819[b] | .671 | .666 | .41229 | .142 | 57.915 | 1 | 134 | .000 |
| 3 | .898[c] | .807 | .803 | .31687 | .136 | 93.853 | 1 | 133 | .000 |

a. Predictors: (Constant), Strategic_Procurement_Practices
b. Predictors: (Constant), Strategic Procurement_Practices, Collaborative_Capability
c. Predictors: (Constant), Strategic_Procurement_practices, Collaborative_Capability, Interaction term

**Source: (Field survey, 2025)**

From the results in Table 4.26, in Stage 1, the model included only strategic procurement practices as the predictor of firm performance. The correlation coefficient (R) for this model was .728, indicating a strong positive relationship between the predictor and the outcome. The coefficient of determination, $R^2 = .529$, shows that strategic procurement practices alone accounted for 52.9% of the variance in firm performance. The adjusted $R^2 = .526$ adjusts for the number of predictors and the sample size, providing a slightly more conservative estimate that still indicates a substantial portion of performance variability is explained by procurement practices. The F-test $F(1, 135) = 151.781$, $p < .001$) confirmed that the model was statistically significant, indicating that strategic procurement practices are a meaningful predictor of performance.

In Stage 2, collaborative capability was added to the regression model. The correlation coefficient increased to $R = .819$, reflecting a stronger overall relationship when both strategic procurement practices and collaborative capability are considered together. The $R^2$ value increased to .671, meaning that the model now explained 67.1% of the variance in firm performance. The adjusted $R^2 = .666$ confirms that this improvement is robust even when accounting for model complexity and sample size. The change in $R^2$ ($\Delta R^2 = .142$) and the associated F-change (F change = 57.915, $p < .001$) demonstrate that collaborative capability contributes an additional 14.2% of explained variance, beyond the effect of strategic procurement practices alone. This stage shows that collaborative capability has a significant direct effect on firm performance and highlights its importance as a contextual factor in the strategic procurement-performance relationship.

In Stage 3, the interaction term between strategic procurement practices and collaborative capability was included to evaluate the moderation effect. The correlation coefficient increased further to R = .898, indicating a very strong combined effect. The $R^2$ increased to .807, with an adjusted $R^2$ of .803, suggesting that 80.7% of the variance in firm performance is now explained by the combined effects of strategic procurement practices, collaborative capability, and their interaction. The $\Delta R^2$ at this stage was .136, meaning that the interaction term alone accounts for an additional 13.6% of explained variance, with an F-change of 93.853 ($p < .05$), confirming that the interaction is statistically significant. These results indicate that collaborative capability moderates the relationship between strategic procurement practices and firm performance, meaning that the strength of the influence of procurement practices on performance depends on the level of collaborative capability within the organization.

The ANOVA results for the hierarchical regression analysis of strategic procurement practices, collaborative capability, and their interaction on firm performance are presented in Table 4.26. The ANOVA evaluates whether the regression models at each stage significantly predict the dependent variable, firm performance, by comparing the variance explained by the model to the unexplained variance (residual). This statistical procedure allows for testing the overall significance of each model, assessing whether the predictors included at each stage meaningfully account for variation in performance outcomes across independent offices and commissions in Kenya. The models are tested sequentially, with Stage 1 including only strategic procurement practices, Stage 2 adding collaborative capability, and Stage 3 introducing the interaction term between strategic procurement practices and collaborative capability to assess moderation.

**Table 4. 37: ANOVA result on Strategic Procurement Practices and Collaborative capability on operational performance of Independent offices and Commissions, Kenya**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 36.677 | 1 | 36.677 | 151.781 | .000[b] |
| | Residual | 32.622 | 135 | .242 | | |
| | Total | 69.299 | 136 | | | |
| 2 | Regression | 46.522 | 2 | 23.261 | 136.842 | .000[c] |
| | Residual | 22.778 | 134 | .170 | | |
| | Total | 69.299 | 136 | | | |
| 3 | Regression | 55.945 | 3 | 18.648 | 185.727 | .000[d] |
| | Residual | 13.354 | 133 | .100 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Strategic_procurement_practices
c. Predictors: (Constant), Strategic_procurement_practices, Collaborative_capability
d. Predictors: (Constant), Strategic_procurement_practices, Collaborative_capability, Interaction term

**Source: (Field survey, 2025)**

In Stage 1, the regression model with strategic procurement practices as the sole predictor produced an F-value of 151.781 (df = 1, 135, $p < .001$). The mean square for regression was 36.677, while the residual mean square was 0.242. This indicates that the model significantly explains a portion of the variance in firm performance compared to the unexplained variance, confirming that strategic procurement practices alone are a significant predictor of performance in independent offices and commissions. The significant F-statistic supports the initial step of the hierarchical model and establishes the baseline for further inclusion of variables.

In Stage 2, collaborative capability was added as an additional predictor. The F-value for this model was 136.842 (df = 2, 134, $p < .001$), with a regression mean square of 23.261 and residual mean square of 0.170. The addition of collaborative capability significantly increased the explanatory power of the model, as reflected in the increase in $R^2$ from Stage 1 ($\Delta R^2 = .142$). The ANOVA results at this stage confirm that collaborative capability contributes significantly to predicting firm performance beyond the effect of strategic procurement practices, providing empirical support for its direct role as a contextual factor influencing organizational outcomes.

In Stage 3, the interaction term between strategic procurement practices and collaborative capability was included to evaluate moderation. The resulting F-value was 185.727 (df = 3, 133,

$p < .05$), with a regression mean square of 18.648 and residual mean square of 0.100. The model remained statistically significant, and the increase in explained variance ($\Delta R^2 = .136$) demonstrates that the interaction term contributes meaningfully and positively to the prediction of firm performance. This stage confirms that collaborative capability moderates the effect of strategic procurement practices on performance, indicating that the strength of the relationship between strategic procurement practices and organizational outcomes depends on the level of collaborative capability within the offices and commissions.

The results of the model coefficients for the three-stage hierarchical regression analysis examining the moderating effect of collaborative capability on the relationship between strategic procurement practices and firm performance are presented in Table 4.35. The coefficients indicate the magnitude and direction of the relationships between predictors and the dependent variable, while also showing the statistical significance of each effect at each stage. The analysis was conducted in a stepwise manner, beginning with strategic procurement practices as the sole predictor, followed by the addition of collaborative capability, and finally including the interaction term (Cross product term) to test for moderation. This approach allows for assessing both the direct effects and the moderating influence of collaborative capability on organizational performance.

**Table 4. 38: Model Coefficient result on Strategic Procurement Practices and Collaborative capability on operational performance of Independent offices and Commissions, Kenya**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .731 | .114 | | 6.412 | .000 |
| | Strategic Procurement Practices | .646 | .052 | .728 | 12.423 | .000 |
| 2 | (Constant) | .271 | .113 | | 2.398 | .018 |
| | Strategic procurement practices | .384 | .056 | .432 | 6.857 | .000 |
| | Collaborative capability | .487 | .064 | .479 | 7.609 | .000 |
| 3 | (Constant) | .085 | .089 | | .955 | .340 |
| | Strategic procurement practices | .349 | .043 | .393 | 8.116 | .000 |
| | Collaborative Capability | .271 | .054 | .266 | 5.019 | .000 |
| | Interaction term | .388 | .040 | .439 | 9.688 | .000 |

a. Dependent Variable: Firm Performance

**Source: (Field survey, 2025)**

The results of the model coefficients for the three-stage hierarchical regression analysis examining the moderating effect of collaborative capability on the relationship between strategic procurement practices and firm performance are presented in Table 4.35. The coefficients indicate the magnitude and direction of the relationships between predictors and the dependent variable, while also showing the statistical significance of each effect at each stage. The analysis was conducted in a stepwise manner, beginning with strategic procurement practices as the sole predictor, followed by the addition of collaborative capability, and finally including the interaction term to test for moderation. This approach allows for assessing both the direct effects and the moderating influence of collaborative capability on organizational performance.

In Stage 1, the model included only strategic procurement practices as the predictor of firm performance. The unstandardized coefficient (B) for strategic procurement practices was 0.646 ($\beta = 0.728$, $t = 12.423$, $p < .001$), indicating a positive and significant relationship with firm performance. This suggests that, for every one-unit increase in strategic procurement practices, firm performance increases by 0.646 units. The constant (intercept) of 0.731 is statistically significant, indicating the baseline level of performance when the predictor is zero. These results confirm that strategic procurement practices independently have a substantial direct effect on the performance of independent offices and commissions in Kenya.

In Stage 2, collaborative capability was added as an additional predictor to the model. Strategic procurement practices remained significant ($B = 0.384$, $\beta = 0.432$, $t = 6.857$, $p < .05$), and collaborative capability also showed a significant positive effect on firm performance ($B = 0.487$, $\beta = 0.479$, $t = 7.609$, $p < .05$). The model indicates that collaborative capability contributes additional explanatory power beyond strategic procurement practices alone. The inclusion of this variable reduced the coefficient of strategic procurement practices, suggesting partial mediation and highlighting that collaborative capability directly strengthens performance outcomes, reflecting its contextual importance within organizational processes.

In Stage 3, the interaction term, representing the product of strategic procurement practices and collaborative capability, was introduced to assess moderation. The coefficients indicate that strategic procurement practices ($B = 0.349$, $\beta = 0.393$, $t = 8.116$, $p <.05$), collaborative capability ($B = 0.271$, $\beta = 0.266$, $t = 5.019$, $p < .05$), and the interaction term ($B = 0.388$, $\beta = 0.439$, $t = 9.688$, $p < .05$) all significantly contribute to predicting firm performance. The significant positive

coefficient for the interaction term confirms that collaborative capability positively and significantly moderates the relationship between strategic procurement practices and performance. Specifically, higher levels of collaborative capability strengthen the positive effect of strategic procurement practices on firm performance. The moderation model can be expressed using the equation:

$$\mathbf{Performance} = \mathbf{0.085} + \mathbf{0.349\ S.P.P} + \mathbf{0.271\ C.C} + \mathbf{0.388(int)}$$

Where $Y_i$is firm performance, $X_1 i$represents strategic procurement practices, $M_i$denotes collaborative capability, and $X_1 i \times M_i$is the interaction term. In the context of this study, $\beta_1$(0.349) represents the effect of strategic procurement practices on performance when collaborative capability is zero, $\beta_m$(0.271) indicates the direct effect of collaborative capability, and $\beta_{int}$(0.388) shows the extent to which collaborative capability moderates the impact of strategic procurement practices. The positive interaction coefficient suggests that as collaborative capability increases, the influence of strategic procurement practices on performance becomes stronger, confirming the hypothesized moderation effect.

The study findings indicate that collaborative capability significantly and positively moderates the relationship between strategic procurement practices and the performance of independent offices and commissions in Kenya. Specifically, offices with higher collaborative capability demonstrated stronger positive outcomes from sourcing, negotiation, and contract management practices, suggesting that collaboration enhances the effectiveness of these procurement strategies. These findings align with the Relational View Theory, which emphasizes the value of inter-organizational relationships in creating competitive advantage, and the Social Exchange Theory, which posits that trust, mutual commitment, and reciprocity strengthen interactions between parties. Additionally, the Collaborative Network Theory supports these results by highlighting how formal and informal linkages, communication channels, and shared knowledge among organizational units improve performance outcomes when procurement practices are applied effectively.

Comparing with empirical studies, the moderation effect observed resonates with findings from Power (2014) in Australia, Kithure (2022) in Kenya, Choi and Hwang (2015) in South Korea, and Samad *et al*. (2021) in Malaysia, who all found that collaborative capability enhances the effectiveness of various supply chain or procurement practices on performance. Similarly, Fawcett

*et al*. (2019) emphasize that strategy alignment and organizational coordination significantly strengthen the relationship between collaborative efforts and performance. While prior studies largely focused on manufacturing, green supply chain practices, or sector-specific procurement functions, the current study extends these insights to independent offices and commissions in Kenya, providing evidence that collaborative capability can amplify the impact of strategic procurement practices across a different institutional and regulatory context.

The moderation findings reveal that collaborative capability significantly and positively amplifies the effect of strategic procurement practices on firm performance ($\beta int = .439$, $B = .388$, $t = 9.688$, $p < .001$) was the central empirical contribution of this thesis. The three-stage hierarchical regression analysis demonstrates a progressive and systematic increase in explanatory power as collaborative capability was introduced: from $R^2 = .529$ (Stage 1) to $R^2 = .671$ (Stage 2), and ultimately to $R^2 = .807$ (Stage 3). The final model explains 80.7% of the variance in firm performance an exceptionally high proportion for organizational research confirming that the combined model of strategic procurement practices and collaborative capability, including their interaction, provides a near-comprehensive explanation of performance variations across independent offices and commissions in Kenya.

The interaction term ($B = .388$, $p < .001$) indicated that the relationship between strategic procurement practices and performance is not fixed; rather, it is contingent on the level of collaborative capability within the institution. Specifically, as collaborative capability increases characterized by stronger communication, more robust interdepartmental relationships, and more effective feedback mechanisms, the positive influence of sourcing, contract management, and negotiation practices on performance becomes progressively stronger. This moderation effect implies that organizations with weak collaborative capability derive substantially less performance benefit from strategic procurement practices than organizations with strong collaborative capability, even when the same procurement practices are in place. This is a critical practical insight: procurement reform efforts that focus solely on improving procurement practices without simultaneously building collaborative capability are likely to yield suboptimal results.

This finding extends and refines the prior theoretical positions of Dyer, Singh, and Hesterly (2018) in the Relational View, who emphasized relational capability as a key enabler of inter-organizational advantage. The current study adds empirical specificity: collaborative capability

operationalized as communication, interdepartmental relationships, and feedback is not merely a contextual backdrop for procurement but an active multiplier of the performance returns generated by procurement practices. This is a novel and important theoretical extension within the Kenyan public sector context.

From the Social Exchange Theory perspective (Cropanzano *et al*., 2017), the moderation effect reflects what might be termed a 'collaborative dividend': organizations that have invested in relational trust and open communication channels are better positioned to translate procurement activities into performance outcomes because the exchange ecosystem within which procurement operates is more efficient, responsive, and aligned. Suppliers who experience collaborative, transparent engagement are more likely to deliver on commitments, respond to performance feedback, and innovate in service delivery all of which directly enhance timeliness, quality, and cost-effectiveness.

The Collaborative Network Theory (Kapucu & Hu, 2020) also provides a structural explanation for the moderation effect. Collaborative networks both internal (between procurement units and user departments) and external (between procurement units and suppliers) function as information conduits and coordination mechanisms that reduce transaction costs, improve decision-making, and accelerate implementation of procurement strategies. When procurement practices are embedded within a high-capability collaborative network, the network amplifies their impact. When collaborative capability is low, the network becomes a friction point that attenuates procurement's potential contribution to performance. The interaction coefficient (B = .388) quantifies that amplification of every unit of collaborative capability magnifies the procurement-performance relationship by .388 units, providing a concrete benchmark for investment in collaborative infrastructure.

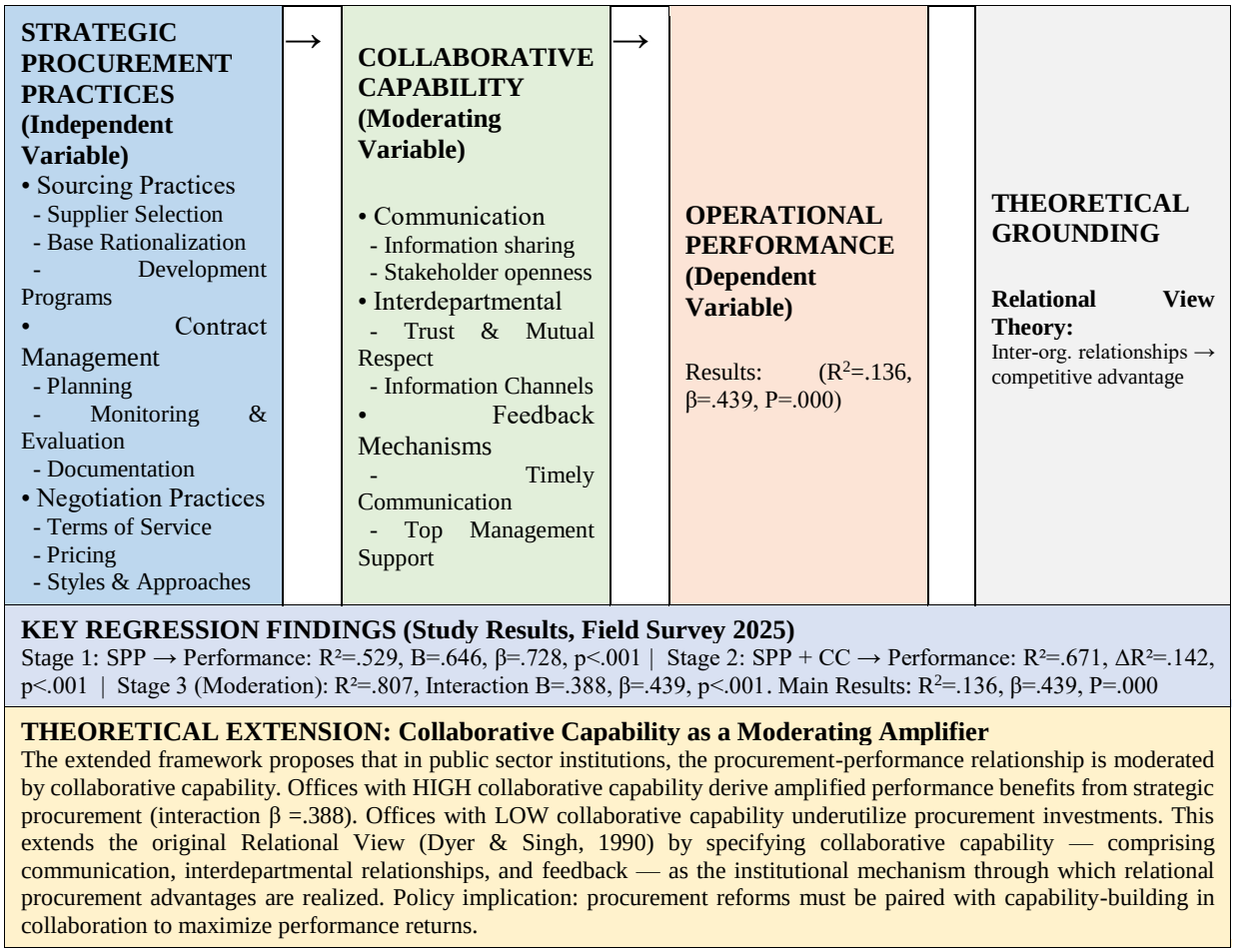
Comparing this finding with Kithure (2022), who found that collaborative capability significantly moderated the green supply chain-performance relationship in Kenyan manufacturing firms, the current study confirms the generalizability of this moderating role beyond the manufacturing sector into the public institutional context. Similarly, Choi and Hwang (2015) and Samad *et al*. (2021) demonstrated moderation in South Korean and Malaysian manufacturing contexts, respectively, reinforcing that collaborative capability consistently strengthens the procurement-performance nexus across diverse national and institutional environments. Importantly, the current

study breaks new ground by situating this moderation within independent offices and commissions entities with distinctive mandates, regulatory frameworks, and stakeholder environments thereby enriching the global evidence base on the role of collaborative capability in public procurement performance.

The practical implications of these moderation results are significant for public procurement policy and management in Kenya. Procurement officers and senior management in independent offices and commissions should recognize collaborative capability not as a soft organizational feature but as a strategic performance driver, that directly determines the returns on procurement investment. This requires institutional commitment to communication systems, interdepartmental collaboration protocols, and feedback mechanisms that ensure procurement decisions are informed by timely, accurate, and actionable information from all stakeholders. The consistent positive significance of all three collaborative capability sub-constructs in the correlation analysis ($r = .636$ for communication, $r = .542$ for interdepartmental relationships, $r = .558$ for feedback; all $p < .001$) further validates this recommendation.

Building on the findings of this study, a theoretical extension of the Relational View Theory (Dyer & Singh, 1990) proposed that explicitly incorporates collaborative capability as a moderating mechanism in the procurement-performance nexus. While the original Relational View focused on inter-organizational relationships as sources of sustained competitive advantage, this study's findings suggest that within the context of public sector institutions, the beneficial effect of relational procurement practices (sourcing, contract management, negotiation) on organizational performance is not automatic it is contingent upon the institution's internal and external collaborative capability. Figure 4.1 below illustrates this extended theoretical framework:

**Figure 4. 1: Theory modelling of Extended Relational-Collaborative Framework for Operational Performance in Independent offices and Commissions, Kenya.**




**Source: (Researcher, 2026)**

Figure 4.1 illustrates the extended relational-collaborative framework derived from this study's findings. The framework situates strategic procurement practices (comprising sourcing, contract management, and negotiation) as the primary drivers of organizational performance in independent offices and commissions. However, it departs from a simple direct-effects model by explicitly positioning collaborative capability as a moderating variable that amplifies or attenuates the strength of the procurement-performance relationship. The theoretical contribution of this extension lies in bridging the Relational View Theory's inter-organizational focus with the Collaborative Network Theory's emphasis on structural network capabilities and the Social Exchange Theory's micro-level relational dynamics synthesizing these perspectives into a unified empirical model applicable to Kenya's public institutional context.

Empirically, the figure is grounded in the three-stage hierarchical regression results, where the interaction between strategic procurement practices and collaborative capability explains an additional 13.6% of variance in performance ($\Delta R^2 = .136$) beyond the direct effects. The colour coding in the figure reflects the three theoretical pillars: blue for Relational View (procurement practices), green for Collaborative Network Theory (collaborative capability), and orange for the performance outcomes. The grey panel synthesizes the theoretical grounding, while the yellow panel at the base articulates the theoretical extension — that collaborative capability is the institutional amplifier of procurement's performance returns. This framework offers both a diagnostic tool for public sector managers assessing their institutions' procurement-collaboration alignment and a conceptual template for future research extending this model to other public sector contexts.

In conclusion, the study confirms the hypothesis that collaborative capability positively moderates the relationship between strategic procurement practices and operational performance. The triangulation of theoretical perspectives, global empirical evidence, and the study’s findings suggests that procurement strategies alone may have limited impact unless complemented by strong collaborative mechanisms. The results demonstrate that offices and commissions with robust interdepartmental collaboration, feedback systems, and communication channels can maximize the benefits of sourcing, negotiation, and contract management practices. This provides both theoretical validation and practical guidance for public institutions seeking to improve procurement outcomes by fostering collaborative capability as a critical organizational resource.

# CHAPTER FIVE

# SUMMARY, CONCLUSSION AND RECOMMENDATION

Chapter five presents the summary, conclusion and recommendation based on the objectives and hypothesis set out in chapter one.

## 5.1 Summary of Findings

The study examined how sourcing practices including supplier selection, base rationalization, and development programs affect performance in independent offices and commissions. Results from multiple regression analyses indicated that sourcing practices collectively contributed significantly to variations in organizational performance, confirming that these practices are meaningful predictors of performance outcomes. The overall model fit was statistically significant, demonstrating that sourcing practices are relevant in explaining organizational performance within the study context. Further analysis of individual predictors revealed that base rationalization exerted the strongest positive influence on performance, suggesting that effective management and optimization of the supplier base is crucial for improving organizational outcomes. Development programs showed a positive but weaker influence, while supplier selection contributed minimally to performance. These findings indicate that among the sourcing practices, not all dimensions are equally impactful, with base rationalization emerging as the most critical for enhancing organizational effectiveness.

Simple linear regression of overall sourcing practices confirmed a positive and meaningful relationship with performance, demonstrating that aggregated sourcing practices provide a substantial contribution to organizational outcomes. This suggests that while individual sourcing dimensions vary in their influence, collectively they remain a relevant aspect of strategic procurement management within independent offices and commissions. The regression model for sourcing practices indicated that improvements in supplier base management, development initiatives, and selection processes are associated with higher organizational performance. However, the stronger impact of base rationalization emphasizes the importance of prioritizing supplier optimization to achieve measurable gains, while other practices may require further refinement or complementary strategies to enhance performance consistently.

The analysis of contract management practices focused on planning, monitoring and evaluation, and documentation as predictors of organizational performance. Results indicated that the combination of these practices significantly predicted performance, highlighting their collective

importance. The model demonstrated good explanatory power and statistical significance, confirming that contract management practices are critical determinants of performance outcomes in the study context. Examining individual predictors revealed that documentation and planning had the strongest positive effects on performance, suggesting that structured record-keeping and proactive planning are essential for effective contract management. Monitoring and evaluation, although positively associated, did not independently predict performance significantly. This finding implies that the success of contract management practices in enhancing organizational performance relies more heavily on planning and documentation than on monitoring and evaluation when considered in isolation.

Simple linear regression of contract management as a composite construct confirmed its positive association with performance, reinforcing the relevance of these practices for organizational effectiveness. The results suggest that improvements in contract management processes can lead to measurable performance gains, especially when planning and documentation are emphasized. Overall, the findings indicate that contract management practices collectively improve performance, with documentation emerging as the most influential factor. The study demonstrates that organizations seeking to enhance performance should focus on ensuring comprehensive planning and robust documentation practices, while also strengthening monitoring and evaluation systems to support continuous improvement.

Negotiation practices, measured through terms of service, pricing, and styles and approaches, were analyzed to determine their effect on organizational performance. Multiple regression results indicated that these practices collectively had a significant positive influence on performance, demonstrating that strategic negotiation plays a key role in enhancing organizational outcomes. Analysis of individual sub-constructs showed that styles and approaches had the strongest effect, followed by pricing and terms of service. This indicates that adopting negotiation methods aligned with organizational objectives, maintaining consistency in pricing discussions, and clearly defining service terms are all critical to achieving performance improvements. Each sub-construct significantly contributed to explaining variations in performance, confirming the relevance of structured negotiation strategies in the operational effectiveness of independent offices and commissions.

Simple linear regression treating negotiation as a composite construct confirmed a positive and statistically significant relationship with performance. This suggests that organizations that

systematically implement negotiation practices across all dimensions are likely to experience enhanced operational effectiveness and better service delivery outcomes. The findings highlight that negotiation practices are a strategic driver of performance. Emphasizing adaptable negotiation styles, transparent pricing, and clear service terms can lead to measurable improvements in organizational outcomes, reinforcing the importance of negotiation as a key component of strategic procurement and operational management.

The multiple regression analysis established that collaborative capability, comprising communication, interdepartmental relationships and feedback, has a positive and statistically significant influence on the performance of Independent Offices and Commissions in Kenya. The findings indicate that collaborative capability makes a unique and meaningful contribution to explaining variations in performance beyond the effects of other strategic procurement practices included in the model. This suggests that organizations characterized by effective communication, strong interdepartmental collaboration and efficient feedback mechanisms are more likely to achieve improved performance outcomes. The results further imply that collaborative capability complements other organizational capabilities by strengthening coordination, facilitating knowledge sharing, and enhancing decision-making processes. Consequently, fostering collaborative capability is essential for improving organizational efficiency, service delivery, and the overall operational performance of Independent Offices and Commissions in Kenya.

The simple linear regression analysis established that collaborative capability has a positive and statistically significant effect on the operational performance of Independent Offices and Commissions in Kenya. The findings indicate that improvements in communication, interdepartmental relationships, and feedback enhance organizational coordination and information sharing, leading to better operational outcomes. Collaborative capability also strengthens teamwork, supports effective decision-making, and promotes continuous organizational learning. These factors enable institutions to optimize resource utilization, improve service delivery, and respond more effectively to operational challenges. Overall, the results demonstrate that collaborative capability is a key driver of organizational performance and should be strengthened to continuous improvement.

The study also examined whether collaborative capability moderates the relationship between strategic procurement practices and organizational performance. Hierarchical regression analyses revealed that the inclusion of collaborative capability significantly increased the proportion of

variance explained in performance outcomes, confirming its role as a moderator. The interaction term between strategic procurement practices and collaborative capability further improved the model fit and was statistically significant, indicating that collaborative capability influences the strength of the relationship between procurement practices and performance.

In the model, the interaction term captures how the effect of procurement practices on performance changes at different levels of collaborative capability. The positive significance of this term suggests that higher levels of collaborative capability strengthen the impact of strategic procurement practices on performance, while lower levels may attenuate this effect. Analysis of individual coefficients indicated that both strategic procurement practices and collaborative capability had positive direct effects on performance. However, the interaction effect demonstrated that organizations with greater interdepartmental collaboration, effective communication, and feedback mechanisms benefit more from procurement practices compared to organizations with weaker collaborative capability. The results provide empirical support for the moderating role of collaborative capability in enhancing the influence of strategic procurement practices on organizational outcomes.

### 5.2 Conclusion

The study concludes that sourcing practices significantly influence the performance of independent offices and commissions in Kenya. Among the dimensions of sourcing, base rationalization emerged as the most critical predictor, highlighting the importance of managing supplier relationships strategically. While supplier selection and development programs contributed positively, their effects were comparatively weaker, indicating that optimization of the supplier base is essential for achieving measurable performance improvements. These findings support the hypothesis that sourcing practices positively affect organizational performance, confirming that organizations that prioritize structured procurement approaches are likely to achieve higher efficiency, reduced costs, and better service delivery outcomes.

Regarding contract management practices, the study concludes that planning and documentation are key drivers of organizational performance, whereas monitoring and evaluation did not independently predict performance in the presence of the other predictors. The findings suggest that effective contract management requires a focus on systematic planning and thorough documentation to ensure consistency, compliance, and efficiency in service delivery. The collective influence of contract management practices significantly enhances performance

outcomes, thereby supporting the hypothesis that contract management has a positive effect on organizational performance. Organizations that neglect either planning or documentation may limit the potential gains from contract management interventions.

The study also concludes that negotiation practices have a substantial and positive effect on performance, with styles and approaches being the strongest contributor, followed by pricing and terms of service. This demonstrates that strategic negotiation, implemented across multiple dimensions, is a critical factor in driving operational efficiency and effectiveness. Negotiation practices enable organizations to align procurement agreements with operational objectives, secure better contractual terms, and maintain consistency in service delivery. These findings support the hypothesis that negotiation practices positively influence performance, highlighting the need for organizations to develop structured negotiation frameworks and train staff on effective negotiation techniques.

The study concludes that collaborative capability is a significant determinant of performance of Independent Offices and Commissions in Kenya. The positive and statistically significant relationship demonstrates that effective communication, strong interdepartmental relationships, and efficient feedback mechanisms enhance organizational coordination and overall effectiveness. These collaborative practices facilitate timely information sharing, improve decision-making, and strengthen teamwork across organizational units. Consequently, institutions are better able to optimize resource utilization, improve service delivery, and respond effectively to operational challenges. The findings further indicate that collaborative capability complements strategic procurement practices by promoting seamless coordination in organizational processes. Therefore, fostering a collaborative organizational culture should be a strategic priority for Independent Offices and Commissions seeking to improve operational performance.

Finally, the study concludes that collaborative capability moderates the relationship between strategic procurement practices and operational performance. The presence of high collaborative capability strengthens the effect of procurement practices on performance, indicating that organizations benefit more from strategic procurement when they have robust interdepartmental collaboration, communication, and coordination mechanisms. This confirms the hypothesis that collaborative capability has a moderating effect, emphasizing that the effectiveness of procurement strategies depends not only on the practices themselves but also on the collaborative environment within the organization. In essence, organizations seeking to maximize performance

should simultaneously invest in procurement systems and collaborative capabilities to achieve optimal outcomes.

### 5.3 Recommendations

Based on the findings on sourcing practices, it is recommended that independent offices and commissions in Kenya prioritize supplier base rationalization as a strategic approach to improve performance. Organizations should systematically evaluate their suppliers to focus on the most reliable and cost-effective partners, reducing redundancy and improving operational efficiency. Additionally, development programs for suppliers should be enhanced to strengthen the capabilities of strategic partners, ensuring a steady supply of quality goods, works, and services. While supplier selection is important, the emphasis should be on building long-term relationships with key suppliers that contribute most significantly to organizational objectives.

With respect to contract management practices, the study recommends that organizations strengthen their planning and documentation processes. This can be achieved by instituting standardized procedures for contract planning, maintaining comprehensive records, and ensuring compliance with contractual terms. Such practices will enhance accountability, reduce delays, and minimize errors in procurement and service delivery. Organizations should also provide training and capacity building for staff involved in contract management to ensure that planning and documentation practices are consistently applied across all departments, while integrating monitoring and evaluation mechanisms in a way that complements, rather than replaces, these key practices.

In relation to negotiation practices, organizations should invest in developing structured negotiation strategies that encompass terms of service, pricing, and negotiation styles. Emphasis should be placed on adopting negotiation approaches that align with organizational objectives and procurement policies. Training staff in negotiation techniques, including scenario-based exercises and cross-departmental collaboration, will enable employees to secure favorable terms, improve cost-efficiency, and enhance client satisfaction. Organizations are encouraged to continuously review and refine their negotiation practices to adapt to changing market conditions and client expectations, thereby sustaining performance improvements over time.

The study recommends that strengthening collaborative capability practices by institutionalizing effective communication systems, fostering strong interdepartmental relationships, and

establishing structured feedback mechanisms across all organizational functions. Institutions should also provide continuous training and capacity-building programs to equip employees with collaboration, communication, and interpersonal skills. In addition, leadership should encourage open feedback practices that support continuous learning, innovation, and performance improvement. Strengthening partnerships among departments and with external stakeholders will further enhance resource coordination and service delivery. Implementing these collaborative capability practices will enable Independent Offices and Commissions to improve operational performance, achieve strategic objectives and deliver quality public services more effectively and sustainably.

Finally, considering the moderating effect of collaborative capability, it is recommended that organizations cultivate a culture of collaboration and interdepartmental communication to maximize the benefits of strategic procurement practices. Collaborative capability can be strengthened through regular coordination meetings, shared performance monitoring systems, and knowledge-sharing platforms that encourage feedback and joint problem-solving. By promoting collaboration across departments and with external partners, organizations can enhance the effectiveness of procurement strategies and ensure that improvements in sourcing, contract management, and negotiation translate into measurable performance gains. This integrated approach will enable independent offices and commissions to achieve higher efficiency, service quality, and overall organizational performance.

### 5.4 Limitations of study

The study acknowledges that the findings may not be entirely generalizable beyond the selected independent offices and commissions in Kenya. The nature of organizational structures, practices, and contextual factors may vary across different sectors and regions. To enhance the study's applicability, a thorough description of the selected entities, their contexts, and the research methodology provided. This transparency aims to assist readers in assessing the transferability of the findings to similar organizational settings.

The research is dependent on the availability and reliability of historical data related to strategic procurement practices, collaborative capability and organizational performance. Incomplete or inaccurate data could affect the comprehensiveness of the analysis. The researcher plans to employ rigorous data verification processes and collaborate closely with the selected organizations to ensure the accuracy and completeness of the data. Additionally, alternative data sources was

explored to supplement any potential gaps.

Strategic procurement practices evolve over time, and the study's focus on a specific period might not capture subsequent developments or changes in procurement strategies. The researcher provided clear information about the scope of time for the study and acknowledge its limitations in capturing dynamic changes beyond the specified timeframe. Recommendations for future research suggested addressed evolving trends.

Another limitation lies in the fact that assessing the independent factors, strategic procurement practices and the moderating variable, collaborative capability is inherently complex, and its measurement involves subjective judgments from the research respondents. Variability in interpreting these aspects among the organizations could influence the study's outcomes. The researcher plans to employ validated measurement tools and triangulation methods, combining multiple sources of data to enhance the reliability and validity of collaborative capability assessments. Clear criteria for evaluation was established.

### 5.5 Suggestions for Further Studies

Future studies could investigate the role of digital procurement technologies in enhancing organizational performance. Examining the adoption of e-procurement platforms and automated systems may reveal new ways to improve efficiency, timeliness, and cost reduction in independent offices and commissions.

Subsequent research could focus on other contextual factors such as organizational culture, leadership style, or employee competencies and how these interact with strategic procurement practices to influence performance outcomes. This could provide a more holistic understanding of determinants of organizational success. It would be valuable to explore the longitudinal effects of procurement and contract management practices on performance. Tracking changes over time could identify whether improvements are sustained and how different interventions contribute to long-term organizational outcomes.

Finally, further studies could examine comparative analyses across different types of government agencies or sectors. This would help establish whether the findings from independent offices and commissions are generalizable or if performance drivers differ significantly across public sector institutions.

## 5.6 Contribution to Knowledge, Implications for Policy and Practice

The findings of this study provide clear guidance for policymakers and managers in independent offices and commissions regarding strategic procurement and contract management. First, enhancing strategic sourcing practices, particularly supplier base rationalization and development programs, should be prioritized to optimize organizational performance. Policymakers can develop procurement guidelines that emphasize careful supplier selection and continuous supplier development, ensuring efficiency and accountability in service delivery.

Second, the study highlights the critical role of contract management practices, specifically planning and documentation, in improving organizational outcomes. Agencies should institutionalize robust planning frameworks, systematic documentation, and monitoring mechanisms to reduce operational inefficiencies. This suggests that policy interventions should focus on standardizing contract management procedures across offices to maintain consistent performance improvements.

Third, the moderation effect of collaborative capability underscores the importance of interdepartmental coordination and communication. Managers should foster collaboration across procurement, finance, and operations departments to amplify the impact of strategic procurement practices. Training programs and workshops can enhance collaboration skills, encouraging a culture of shared responsibility and collective problem-solving in the public sector.

Finally, the study contributes new knowledge on the combined effect of negotiation, sourcing, and contract management practices on organizational performance. By quantifying the relative influence of each practice, it enables evidence-based decision-making for resource allocation and capacity-building initiatives. Policymakers and practitioners can use these insights to prioritize interventions that maximize performance outcomes, ensuring that strategic procurement reforms translate into measurable improvements in service delivery.

In conclusion, the study confirms the hypothesis that collaborative capability positively moderates the relationship between strategic procurement practices and operational performance. The triangulation of theoretical perspectives, global empirical evidence, and the study's findings suggests that procurement strategies alone may have limited impact unless complemented by strong collaborative mechanisms. The results demonstrate that offices and commissions with robust interdepartmental collaboration, feedback systems, and communication channels can maximize the benefits of sourcing, negotiation, and contract management practices. This provides

both theoretical validation and practical guidance for public institutions seeking to improve procurement outcomes by fostering collaborative capability as a critical organizational resource.

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## APPENDICES

### Appendix I: Letter of Introduction

OSEWE PATRICIA ODENYO

PHD/BE/00104/020

P.O BOX 124-40102,

KOMBEWA

DATE: 5TH OCT. 2025

TO: Whom it may Concern

Dear Respondent,

**REF: REQUEST TO PARTCIPATE IN RESEARCH**

My name is Patricia Odenyo Osewe, a PhD student (Registration Number: PHD/BE/00104/020) pursuing the Degree of Doctor of Philosophy in Supply Chain Management at Maseno University. I am conducting a research study titled "Strategic Procurement Practices, Collaborative Capability, and Performance of Independent Offices and Commissions in Kenya."Your participation in this study is crucial in helping to achieve its objectives. The questionnaire provided below has been carefully designed to gather relevant information to fulfill the aims of the study. Your honest and thoughtful responses to the questionnaire items are greatly appreciated. If you have any queries or need further clarification, please feel free to contact the undersigned

Thank you

Sincerely,

PATRICIA ODENYO OSEWE
0711153124
Patriciah6924@gmail.com

**Appendix II: Questionnaire**

**Give brief intro**

**SECTION A: Background information**

1. Gender:

Male ☐

Female ☐

2. Age:

Under 20 ☐

20-29 ☐

30-39 ☐

40-49 ☐

50-59 ☐

60 and above ☐

3. Position within Organization:

Head of Procurement. ☐

Procurement Officers ☐

Departmental Heads ☐

4. Name of Organization (Optional):

_____

5. Highest Academic Attainment:

High School Diploma ☐

Bachelor's Degree ☐

Master's Degree ☐

Doctorate Degree ☐

Other (Please Specify): _____

6. Duration of Employment within the Organization:

Less than 1 year ☐

1-3 years ☐

4-6 years ☐

7-9 years ☐

10 years or more ☐

7. Are you currently registered on a procurement body?

☐ Yes

☐

No

8. Which of these bodies are you registered with?

KISM ☐

CIPS ☐

Other (Please Specify): _____

**STRATEGIC MANAGEMENT PRACTICES**

*The following section contains statements on aspects of strategic management practices within your organization. Respond using a Likert scale ranging from 1 to 5, where each number corresponds to a level of agreement with the statements provided. Please indicate your level of agreement by selecting the appropriate number for each statement.*

*1- Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree.*

*For each statement in the questionnaire, please choose the number that best reflects your opinion or perception about sourcing. There are no right or wrong answers; we are interested in your honest feedback. Thank you for your participation.*

**SECTION B: SOURCING**

| | **Sourcing** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|---|
| 9. | The organization carries out prequalification of service providers for various opportunities | | | | | |
| 11. | The organization selects service providers for every procurement opportunity based on the prequalification database list | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 12. | The organization visits the premises of suppliers to audit their capability. | | | | | |
| 13. | The organization appraises its suppliers and decides on the optimal number that should remain in the supplier base | | | | | |
| 14. | The organization reduces its supply base to few suppliers who provide the organization with maximum value | | | | | |
| 15. | The organization trains suppliers to develop their skills and knowledge in relevant areas of operation | | | | | |
| 16. | The organization collaborates with suppliers in joint planning sessions for products and services | | | | | |
| 17. | The organization has a service level agreement (SLA) for every procurement opportunity with service providers | | | | | |
| 18. | The organization adheres to SLA for every procurement opportunity with service providers | | | | | |
| 19. | The organization implements Early Supplier Involvement (ESI) with its service providers in practice | | | | | |

**SECTION C: NEGOTIATION**

*Please select the appropriate response for each question using a tick (✓) or a mark (X) as relates to the following negotiation aspects within your organization.*

*Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree*

| | **Negotiation** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|---|
| 20. | The firm negotiates with its service providers on payment terms for goods, works and services | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 21. | We discuss with our suppliers to agree on delivery periods for goods and services | | | | | |
| 22. | We discuss with our suppliers to obtain quality of goods, works and services | | | | | |
| 23. | The department has a policy regarding the appropriate negotiation style to use with suppliers | | | | | |
| 24. | Employees have the necessary skills to hold negotiations with suppliers for better terms and prices | | | | | |
| 25. | We discuss with our suppliers to agree on payment terms | | | | | |
| 26. | The firm negotiates with its service providers on terms of contract service for goods, works and services | | | | | |
| 27. | The organization ensures that its mode of payment is consistent with negotiated terms of payment | | | | | |
| 28. | The organization adopts a negotiation style which is relevant and consistent with objectives of the procurement unit | | | | | |
| 29. | | | | | | |

**SECTION D: CONTRACT MANAGEMENT**

*Please select the appropriate response for each question using a tick (✓) or a mark (X) as relates to the following contract management aspects within your organization.*

*1- Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree.*

| | **Contract Management** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 30. | It is part of our strategy to plan for what type of contracts we will need during the financial year | | | | | |
| 31. | We have a team that engages in regular review of our contracts during the financial year | | | | | |
| 32. | It is important for my organization to check and continuously improve our contracts to meet predetermined goals | | | | | |
| 33. | The procurement department uses pre-developed contract documents for our contracts with suppliers time and time again | | | | | |
| 34. | We store all our contract documents so that we can refer to them in the future | | | | | |
| 35. | The organization uses standard tender documents from Public Procurement Regulatory Authority (PPRA) when contracting for goods, works and services | | | | | |
| 36. | The organization adopts and uses innovative ways when planning contracts for goods, works and services | | | | | |
| 37. | The organization carries out post contract audit and evaluation as a monitoring tool for services, goods and works procured | | | | | |
| 38. | The organization follows and implements recommendations of post contract audits on areas of improvements for future engagements | | | | | |
| 39. | The organization reviews contract performance of service providers | | | | | |

**SECTION E: COLLABORATIVE CAPABILITY**

*Please select the appropriate response for each question using a tick (✓) or a mark (X) as relates to the following collaborative capability aspects within your organization.*

*1- Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree.*

| | **Collaborative Capability** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|---|
| 40. | The organization constantly shares information with its external stakeholders | | | | | |
| 41. | It is easy for subordinates to reach their supervisors to raise concerns | | | | | |
| 42. | The departments within my organization constantly share relevant information with each other | | | | | |
| 43. | The organization is open to feedback from external stakeholders | | | | | |
| 44. | There are clear communication channels to respond to information shared from other departments | | | | | |
| 45. | There is trust and mutual respect by departmental members in the organization in performance of duties | | | | | |
| 46. | The procurement department receives timely communication from user departments on their procurement needs | | | | | |
| 47. | The procurement department timely communicates with user departments on their procurement needs | | | | | |
| 48. | The top management supports operations of the procurement unit through resource allocation and timely approvals | | | | | |

**SECTION F: PERFORMANCE**

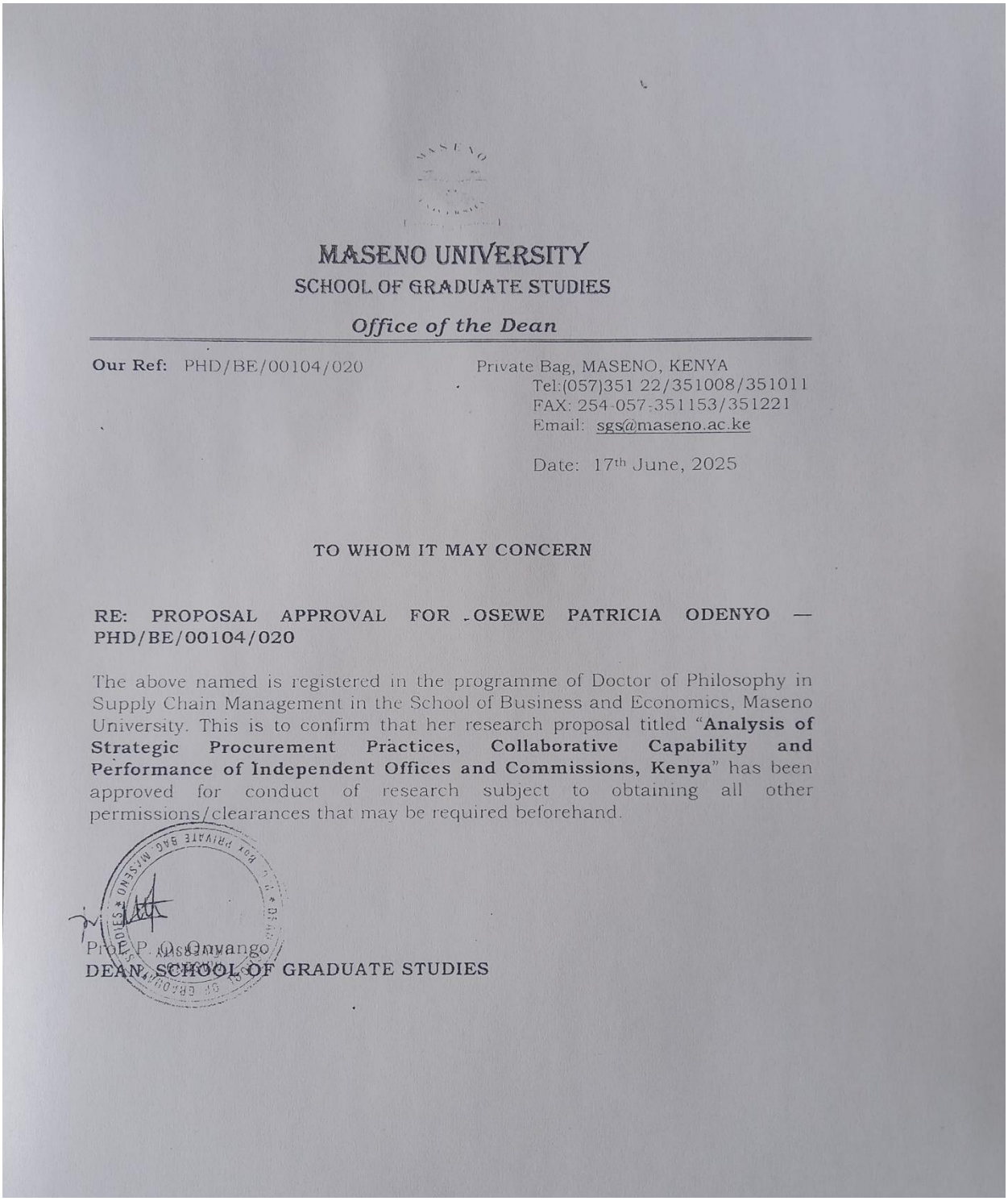
*Please select the appropriate response for each question using a tick (✓) or a mark (X) as relates to the following performance aspects within your organization.*

*1- Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree and 5-Strongly Agree.*

| | **Performance** | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|---|
| 49. | The organization has experienced shortened lead time because of adoption of strategic procurement practices and collaborative capability | | | | | |
| 50. | The organization's delivery time has improved because of adoption of strategic procurement practices and collaborative capability | | | | | |
| 51. | We offer our clients all the services as promised in the service charter | | | | | |
| 52. | Adopting strategic practices and collaborative practices has reduced cost of ordering goods, works and services | | | | | |
| 53. | Our clients can access all the services they require from us at any time | | | | | |
| 54. | The organization's cycle time has improved because of adoption of strategic procurement practices and collaborative capability | | | | | |
| 55. | Our service delivery is constantly improving in quality practices | | | | | |
| 56. | The quality of goods, works and services has improved in the organization because of adopting strategic procurement practices and capability of collaboration | | | | | |
| 57. | The cost of producing our services has reduced due to adoption of strategic procurement practices and collaborative capability | | | | | |
| 58. | The complaints from customers have reduced due to the use and adoption of strategic procurement practices and collaborative capability. | | | | | |

***Thank you!!***

## Appendix III: School of Graduate Approval



MASENO UNIVERSITY
SCHOOL OF GRADUATE STUDIES

*Office of the Dean*

**Our Ref:** PHD/BE/00104/020

Private Bag, MASENO, KENYA
Tel:(057)351 22/351008/351011
FAX: 254-057-351153/351221
Email: sgs@maseno.ac.ke

Date: 17th June, 2025

TO WHOM IT MAY CONCERN

**RE: PROPOSAL APPROVAL FOR OSEWE PATRICIA ODENYO — PHD/BE/00104/020**

The above named is registered in the programme of Doctor of Philosophy in Supply Chain Management in the School of Business and Economics, Maseno University. This is to confirm that her research proposal titled "**Analysis of Strategic Procurement Practices, Collaborative Capability and Performance of Independent Offices and Commissions, Kenya**" has been approved for conduct of research subject to obtaining all other permissions/clearances that may be required beforehand.

Prof. P. Ogutu Onyango
DEAN, SCHOOL OF GRADUATE STUDIES

# MASENO UNIVERSITYSCIENTIFIC AND ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622 Ext: 3050
Fax: +254 057 351 221
Private Bag – 40105, Maseno, Kenya
Email: muerc-secretariate@maseno.ac.ke

**REF**: MSU/DRPI/MUSERC/01524/25 **Date**: 30th September, 2025

**TO:** Osewe, Patricia Odenyo
PHD/BE/00104/020
Department of Management Science
School of Business and Economics
Maseno University
P. O. Box, Private Bag, Maseno, Kenya

Dear Madam,

**Analysis of Strategic Procurement Practices, Collaborative Capability and Performance of Independent Offices and Commissions, Kenya**

This is to inform you that **Maseno University Scientific and Ethics Review Committee (MUSERC)** has reviewed and approved your above research proposal. Your application approval number is MUSERC/01524/25. The approval period is 30th September, 2025 – 29th September, 2026.

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 Maseno University Scientific and Ethics Review Committee (MUSERC).
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 Maseno University Scientific and Ethics Review Committee (MUSERC) within 24 hours of notification.
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to Maseno University Scientific and Ethics Review Committee (MUSERC) within 24 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 Maseno University Scientific and Ethics Review Committee (MUSERC).

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

Yours sincerely

Dr. Bonuke Anyona, PhD
**Chairman, MUSERC**

MASENO UNIVERSITY ETHICS REVIEW COMMITTEE 30 SEP 2025

## Appendix V: NACOSTI Approval

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **502267**

Date of Issue: **23/October/2025**

**RESEARCH LICENSE**



**This is to Certify that Miss.. Patricia ODENYO Osewe of Maseno University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: ANALYSIS OF STRATEGIC PROCUREMENT PRACTICES, COLLABORATIVE CAPABILITY AND PERFORMANCE OF INDEPENDENT OFFICES AND COMMISSIONS, KENYA for the period ending : 23/October/2026.**

License No: **NACOSTI/P/25/4181077**

**502267**

Applicant Identification Number

Ag. Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

**See overleaf for conditions**

**Appendix VI: List of Independent Commissions and Offices**

1. Ethics Anti-Corruption Commission- EACC

2. Independent Electoral and Boundaries Commission-IEBC

3. Parliamentary Service Commission-PSC

4. Independent Policing and Oversight Authority-IPOA

5. Kenya National Human Rights and Equality Commission-KNHREC

6. National Lands Commission-NLC

7. Judicial Service Commission-JSC

8. Commission on Revenue Allocation-CRA

9. Public Service Commission of Kenya-PSCK

10. Commission on Administrative Justice-CAJ

11. Teachers Service Commission-TSC

12. National Police Service Commission-NPSC

13. Auditor-General

14. Controller of the Budget

15. National Gender and Equality Commission-NGEC

16. Kenya Law Reforms Commission-KLRC

17. Commission for University Education-CUE

**Appendix VII: Map of Kenya showing Nairobi city, study area**



**Appendix VIII: Krejcie & Morgan Sample table**

| *N* | *S* | *N* | *S* | *N* | *S* |
|---|---|---|---|---|---|
| 10 | 10 | 220 | 140 | 1200 | 291 |
| 15 | 14 | 230 | 144 | 1300 | 297 |
| 20 | 19 | 240 | 148 | 1400 | 302 |
| 25 | 24 | 250 | 152 | 1500 | 306 |
| 30 | 28 | 260 | 155 | 1600 | 310 |
| 35 | 32 | 270 | 159 | 1700 | 313 |
| 40 | 36 | 280 | 162 | 1800 | 317 |
| 45 | 40 | 290 | 165 | 1900 | 320 |
| 50 | 44 | 300 | 169 | 2000 | 322 |
| 55 | 48 | 320 | 175 | 2200 | 327 |
| 60 | 52 | 340 | 181 | 2400 | 331 |
| 65 | 56 | 360 | 186 | 2600 | 335 |
| 70 | 59 | 380 | 191 | 2800 | 338 |
| 75 | 63 | 400 | 196 | 3000 | 341 |
| 80 | 66 | 420 | 201 | 3500 | 346 |
| 85 | 70 | 440 | 205 | 4000 | 351 |
| 90 | 73 | 460 | 210 | 4500 | 354 |
| 95 | 76 | 480 | 214 | 5000 | 357 |
| 100 | 80 | 500 | 217 | 6000 | 361 |
| 110 | 86 | 550 | 226 | 7000 | 364 |
| 120 | 92 | 600 | 234 | 8000 | 367 |
| 130 | 97 | 650 | 242 | 9000 | 368 |
| 140 | 103 | 700 | 248 | 10000 | 370 |
| 150 | 108 | 750 | 254 | 15000 | 375 |
| 160 | 113 | 800 | 260 | 20000 | 377 |
| 170 | 118 | 850 | 265 | 30000 | 379 |
| 180 | 123 | 900 | 269 | 40000 | 380 |
| 190 | 127 | 950 | 274 | 50000 | 381 |
| 200 | 132 | 1000 | 278 | 75000 | 382 |
| 210 | 136 | 1100 | 285 | 1000000 | 384 |

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

**Appendix IX: Estimated Budget**

| ACTIVITIES | QUANTITY | RATE | TOTAL |
|---|---|---|---|
| Proposal Writing | | | |
| • Stationery-Notebooks | 4 | 320x4 | 1,280.00 |
| -Pens | 1 dozen | 80x12 | 960.00 |
| -Flash disk | 32 GB | 1,000 | 1,000.00 |
| -Foolscaps | 1 ream | 520 | 520.00 |
| -Spring files | 4 pieces | 80x4 | 360.00 |
| | | | 7500.00 |
| • Typesetting & printing | 250 pages | 30x250 | 2,500.00 |
| • Photocopying | 107 pages | 1,250x5 | 535.00 |
| • Binding (loosely) | 5 Copies | 40x5 | 300.00 |
| • Transport) | 5 days | 600.00 | |
| Sub-total | | | 14,620 |
| Pilot Study | | | |
| Distributing Questionnaires | 60 GB bundles | 3,000.00 | 3,000.00 |
| Research Assistants | 10 | 10,000 | 100,000.00 |
| | | | 53, 300 |
| Data collection & Analysis | | | |
| Sound Recording device | 1 | 15,000x1 | 15,000.00 |
| Distributing online Questionnaire | 60 GB bundles | 3,000.00 | 3,000.00 |
| Research Assistants | 5 | 10,000x5 | 50,000.00 |
| Transcription software | 1 | 30,000x1 | 30,000.00 |
| Transcriptionist | 1 | 20,000x1 | 20,000 |
| Data analysis software | 2 | 30,000x2 | 60,000.00 |
| Sub-contract (research company) | 1 | 120,000 | 120,000.00 |
| | | | 278, 000 |
| Thesis preparation | | | |
| Typesetting &printing | 107 pages | 107x30 | 900.00 |
| Photocopying | 2,100 pages | 2,100x2 | 4,200.00 |
| Binding | 10 copies | 400x8 | 4,000.00 |
| Transport | | 600 | 600 |
| | | | 9, 300 |
| Contingencies 10% | | | 37,522 |
| GRAND TOTAL | | | 600,742.00 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31-35 Years | Male | Bachelor's Degree | Head of procurement | 1-3 year | Registered | KISM | 2 | 3 | 3 | 1 | 3 | 2 | 2 | 5 | 4 |
| 41-45 Years | Female | Bachelor's Degree | Head of procurement | 1-3 year | Registered | KISM | 3 | 3 | 2 | 4 | 4 | 2 | 5 | 3 | 2 |
| 41-45 Years | Male | Bachelor's Degree | Head of procurement | 4-6 year | Registered | KISM | 1 | 2 | 2 | 2 | 3 | 4 | 1 | 2 | 5 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 3 | 4 | 3 | 2 | 1 | 1 | 5 | 2 | 2 |
| 51-55 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 3 | 3 | 3 | 4 | 1 | 2 | 2 | 3 | 3 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 2 | 5 | 4 | 4 | 3 | 4 | 2 | 2 | 2 |
| 51-55 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 2 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 |
| 31-35 Years | Male | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 4 | 1 | 4 | 3 | 1 | 4 | 1 | 3 | 1 |
| 31-35 Years | Male | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | CIPS | 1 | 3 | 1 | 2 | 1 | 2 | 3 | 3 | 4 |
| 36-40 Years | Male | Bachelor's Degree | Head of procurement | 1-3 year | Registered | CIPS | 3 | 1 | 2 | 2 | 5 | 1 | 1 | 2 | 2 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41-45 Years | Female | Bachelor's Degree | Head of procurement | 1-3 year | Registered | CIPS | 2 | 2 | 2 | 2 | 2 | 4 | 1 | 1 | 3 |
| 46-50 Years | Female | Bachelor's Degree | Head of procurement | 7-9 year | Registered | CIPS | 4 | 2 | 1 | 2 | 2 | 4 | 2 | 1 | 4 |
| 31-35 Years | Female | Bachelor's Degree | Head of procurement | 1-3 year | Registered | KISM | 4 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 3 |
| 26-30 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 3 | 5 | 2 | 1 | 1 | 2 | 2 | 1 | 3 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 1 | 1 | 3 | 5 | 4 | 1 | 2 | 4 | 4 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 4 | 1 | 5 | 3 | 4 | 2 | 2 | 1 | 1 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 1 | 1 | 3 | 4 | 2 | 2 | 3 | 1 | 4 |
| 46-50 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 2 | 4 | 3 | 2 | 3 | 3 | 1 | 4 | 1 |
| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 4 | 2 | 4 | 4 | 2 | 5 | 1 | 1 | 5 |
| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 7-9 year | Registered | CIPS | 3 | 1 | 4 | 2 | 2 | 1 | 2 | 1 | 2 |
| 31-35 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | CIPS | 3 | 2 | 5 | 5 | 5 | 3 | 3 | 1 | 3 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 46-50 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 2 | 4 | 4 | 2 | 4 | 3 | 3 | 4 | 3 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | CIPS | 1 | 3 | 1 | 2 | 5 | 3 | 2 | 4 | 5 |
| 46-50 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 3 | 2 | 4 | 5 | 4 | 1 | 3 | 2 | 4 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 1 | 1 | 2 | 3 | 4 | 1 | 5 | 3 | 1 |
| 56-60 Years | Female | Bachelor's Degree | Procurement Officer | 7-9 year | Registered | KISM | 4 | 5 | 3 | 3 | 2 | 1 | 5 | 2 | 2 |
| 41-45 Years | Female | Master's Degree | Procurement Officer | 7-9 year | Registered | KISM | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 3 | 2 |
| 41-45 Years | Female | Master's Degree | Procurement Officer | 4-6 year | Registered | KISM | 3 | 3 | 1 | 4 | 4 | 2 | 2 | 3 | 1 |
| 51-55 Years | Female | Master's Degree | Procurement Officer | 4-6 year | Registered | KISM | 2 | 5 | 4 | 3 | 5 | 2 | 1 | 2 | 3 |
| 56-60 Years | Female | Master's Degree | Procurement Officer | 7-9 year | Registered | CIPS | 3 | 4 | 3 | 2 | 4 | 2 | 2 | 2 | 1 |
| 41-45 Years | Female | Master's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 3 | 1 | 4 | 4 | 1 | 5 | 4 | 1 | 4 |
| 41-45 Years | Female | Master's Degree | Head of Department | 4-6 year | Not Regist | NONE | 4 | 5 | 5 | 2 | 1 | 3 | 5 | 1 | 1 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41-45 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 1 | 5 | 3 | 3 | 4 | 2 | 3 | 1 | 3 |
| 36-40 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 3 | 4 | 3 | 4 | 4 | 5 | 5 | 3 | 3 |
| 41-45 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 3 | 2 | 2 | 4 | 1 | 4 | 4 | 1 | 2 |
| 36-40 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 2 | 3 | 2 | 2 | 2 | 3 | 4 | 4 | 5 |
| 36-40 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 3 | 5 | 3 | 4 | 2 | 3 | 4 | 5 | 4 |
| 36-40 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 1 | 3 | 5 | 3 | 1 | 3 | 2 | 4 | 2 |
| 41-45 Years | Female | Master's Degree | Head of Department | 4-6 year | Not Regist | NONE | 1 | 1 | 3 | 1 | 1 | 4 | 1 | 2 | 4 |
| 41-45 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 4 | 2 | 3 | 2 | 1 | 2 | 2 | 1 | 3 |
| 36-40 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 2 | 1 | 2 | 3 | 3 | 2 | 2 | 5 | 4 |
| 41-45 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 1 | 1 | 5 | 4 | 3 | 3 | 2 | 3 | 3 |
| 36-40 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 3 | 2 | 1 | 1 | 2 | 4 | 3 | 4 | 5 |

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| 41-45 Years | Female | Bachelor's Degree | Head of Department | 4-6 year | Not Regist | NONE | 1 | 1 | 5 | 3 | 3 | 2 | 3 | 5 | 2 |
| 36-40 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 1 | 3 | 1 | 2 | 1 | 5 | 3 | 1 | 4 |
| 36-40 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 2 | 5 | 1 | 1 | 2 | 2 | 2 | 3 | 4 |
| 36-40 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 5 | 3 | 4 | 2 | 5 | 1 | 2 | 3 | 2 |
| 41-45 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 5 | 3 | 1 | 2 | 4 | 3 | 5 | 4 | 1 |
| 41-45 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 2 | 3 | 2 | 2 | 1 | 2 | 3 | 4 | 1 |
| 26-30 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 2 | 3 | 3 | 1 | 4 | 3 | 5 | 3 | 2 |
| 36-40 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 1 | 4 | 2 | 5 | 5 | 3 | 1 | 2 | 1 |
| 36-40 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 1 | 3 | 1 | 4 | 4 | 3 | 5 | 3 | 2 |
| 41-45 Years | Female | Master's Degree | Head of Department | 1-3 year | Not Regist | NONE | 2 | 4 | 1 | 1 | 4 | 3 | 2 | 3 | 5 |
| 36-40 Years | Female | Doctorate Degree | Head of Department | 1-3 year | Not Regist | NONE | 3 | 2 | 4 | 4 | 2 | 1 | 3 | 4 | 3 |

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| 41-45 Years | Female | Doctorate Degree | Procurement Officer | 1-3 year | Registered | CIPS | 4 | 1 | 1 | 5 | 4 | 5 | 5 | 1 | 2 |
| 36-40 Years | Female | Doctorate Degree | Procurement Officer | 1-3 year | Registered | CIPS | 2 | 4 | 3 | 3 | 5 | 1 | 5 | 3 | 3 |
| 41-45 Years | Female | Doctorate Degree | Procurement Officer | 1-3 year | Registered | CIPS | 1 | 2 | 3 | 1 | 1 | 5 | 3 | 2 | 3 |
| 41-45 Years | Female | Doctorate Degree | Procurement Officer | 4-6 year | Registered | CIPS | 4 | 5 | 2 | 4 | 2 | 4 | 1 | 5 | 3 |
| 31-35 Years | Female | Doctorate Degree | Procurement Officer | 1-3 year | Registered | CIPS | 5 | 4 | 4 | 2 | 3 | 3 | 1 | 1 | 2 |
| 36-40 Years | Female | Doctorate Degree | Procurement Officer | 1-3 year | Registered | KISM | 2 | 4 | 3 | 3 | 4 | 2 | 3 | 3 | 2 |
| 51-55 Years | Female | Doctorate Degree | Procurement Officer | 7-9 year | Registered | KISM | 4 | 3 | 1 | 3 | 1 | 1 | 4 | 2 | 4 |
| 46-50 Years | Female | Bachelor's Degree | Procurement Officer | 7-9 year | Registered | KISM | 2 | 3 | 1 | 2 | 2 | 3 | 5 | 2 | 1 |
| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 2 | 3 | 3 | 1 | 3 | 3 | 1 | 3 | 3 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 3 | 3 | 2 | 2 | 3 | 5 | 1 | 2 | 3 |
| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | CIPS | 1 | 3 | 2 | 1 | 1 | 1 | 2 | 3 | 3 |

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| 31-35 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 1 | 2 | 4 | 3 | 1 | 1 | 5 | 1 | 4 |
| 41-45 Years | Female | Bachelor's Degree | Head of procurement | 1-3 year | Registered | CIPS | 3 | 1 | 2 | 2 | 1 | 3 | 3 | 3 | 1 |
| 31-35 Years | Female | Bachelor's Degree | Head of procurement | 1-3 year | Registered | KISM | 4 | 3 | 5 | 3 | 1 | 3 | 3 | 5 | 4 |
| 41-45 Years | Male | Bachelor's Degree | Head of procurement | 1-3 year | Registered | KISM | 2 | 2 | 3 | 3 | 1 | 3 | 3 | 3 | 2 |
| 36-40 Years | Male | Bachelor's Degree | Head of Department | 7-9 year | Not Regist | NONE | 3 | 5 | 2 | 2 | 3 | 3 | 4 | 4 | 2 |
| 36-40 Years | Male | Bachelor's Degree | Head of Department | 4-6 year | Not Regist | NONE | 3 | 1 | 5 | 3 | 1 | 1 | 2 | 3 | 1 |
| 26-30 Years | Female | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 1 | 4 | 1 | 1 | 4 | 1 | 5 | 1 | 5 |
| 31-35 Years | Female | Diploma | Head of Department | 4-6 year | Not Regist | NONE | 3 | 3 | 1 | 1 | 2 | 3 | 1 | 4 | 3 |
| 26-30 Years | Male | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 1 | 3 | 4 | 3 | 1 | 2 | 4 | 1 | 4 |
| 41-45 Years | Female | Diploma | Head of Department | 4-6 year | Not Regist | NONE | 3 | 5 | 3 | 2 | 2 | 5 | 3 | 3 | 5 |
| 36-40 Years | Male | Diploma | Head of Department | 4-6 year | Not Regist | NONE | 2 | 3 | 1 | 1 | 4 | 3 | 4 | 1 | 3 |

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| 36-40 Years | Female | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 3 | 4 | 2 | 5 | 3 | 2 | 4 | 4 | 3 |
| 36-40 Years | Male | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 2 | 2 | 3 | 4 | 5 | 4 | 3 | 2 | 2 |
| 31-35 Years | Female | Diploma | Head of Department | 4-6 year | Not Regist | NONE | 2 | 1 | 2 | 3 | 1 | 2 | 1 | 1 | 1 |
| 46-50 Years | Female | Diploma | Head of Department | 4-6 year | Not Regist | NONE | 2 | 3 | 5 | 1 | 5 | 1 | 3 | 3 | 1 |
| 31-35 Years | Female | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 4 | 3 | 3 | 1 | 3 | 5 | 1 | 4 | 4 |
| 51-55 Years | Male | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 4 | 1 | 2 | 3 | 3 | 2 | 1 | 3 | 2 |
| 31-35 Years | Male | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 2 | 1 | 1 | 1 | 4 | 2 | 2 | 2 | 3 |
| 41-45 Years | Female | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 2 | 2 | 4 | 1 | 5 | 1 | 5 | 1 | 3 |
| 41-45 Years | Male | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 4 | 3 | 2 | 5 | 1 | 1 | 2 | 3 | 5 |
| 41-45 Years | Male | Diploma | Head of Department | 1-3 year | Not Regist | NONE | 2 | 1 | 3 | 4 | 4 | 1 | 1 | 3 | 4 |
| 36-40 Years | Female | Bachelor's Degree | Head of Department | 1-3 year | Not Regist | NONE | 4 | 3 | 5 | 4 | 1 | 4 | 3 | 4 | 5 |

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| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 4 | 5 | 1 | 4 | 2 | 4 | 3 | 3 | 4 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 2 | 1 | 5 | 2 | 3 | 3 | 2 | 5 | 3 |
| 26-30 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 3 | 2 | 2 | 4 | 5 | 3 | 2 | 1 | 1 |
| 31-35 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 4 | 5 | 2 | 1 | 2 | 2 | 3 | 3 | 2 |
| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 4 | 3 | 4 | 5 | 4 | 3 | 2 | 3 | 2 |
| 46-50 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | CIPS | 1 | 4 | 4 | 3 | 1 | 2 | 4 | 1 | 5 |
| 31-35 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 5 | 3 | 4 | 3 | 3 | 5 | 5 | 2 | 2 |
| 31-35 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 1 | 3 | 2 | 4 | 3 | 1 | 3 | 1 | 3 |
| 26-30 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | CIPS | 4 | 1 | 4 | 1 | 4 | 1 | 1 | 5 | 2 |
| 41-45 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | CIPS | 1 | 5 | 3 | 3 | 2 | 4 | 1 | 5 | 3 |
| 51-55 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | CIPS | 5 | 3 | 1 | 2 | 3 | 2 | 1 | 2 | 1 |

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| 41-45 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 2 | 3 | 5 | 3 | 1 | 1 | 3 | 3 | 3 |
| 41-45 Years | Female | Diploma | Procurement Officer | 7-9 year | Registered | CIPS | 2 | 3 | 1 | 3 | 4 | 2 | 3 | 2 | 3 |
| 36-40 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 3 | 4 | 1 | 3 | 4 | 3 | 1 | 5 | 2 |
| 31-35 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 2 | 2 | 4 | 2 | 1 | 4 | 2 | 2 | 3 |
| 36-40 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | CIPS | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 4 | 2 |
| 26-30 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 1 | 5 | 1 | 5 | 4 | 1 | 4 | 2 | 5 |
| 41-45 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 4 | 4 | 5 | 5 | 2 | 2 | 3 | 3 | 2 |
| 56-60 Years | Female | Diploma | Procurement Officer | 7-9 year | Registered | CIPS | 5 | 5 | 1 | 3 | 3 | 3 | 2 | 3 | 1 |
| 26-30 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 3 | 2 | 5 | 2 | 3 | 1 | 1 | 1 | 4 |
| 36-40 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | KISM | 1 | 2 | 1 | 3 | 4 | 1 | 4 | 3 | 2 |
| 46-50 Years | Female | Diploma | Procurement Officer | 7-9 year | Registered | KISM | 3 | 1 | 1 | 2 | 2 | 1 | 4 | 2 | 1 |

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| 41-45 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | KISM | 2 | 5 | 5 | 4 | 2 | 3 | 5 | 3 | 5 |
| 31-35 Years | Male | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 1 | 4 | 4 | 3 | 5 | 2 | 2 | 3 | 3 |
| 46-50 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | KISM | 4 | 2 | 2 | 1 | 5 | 5 | 4 | 4 | 3 |
| 26-30 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 2 | 5 | 4 | 5 | 5 | 1 | 5 | 4 | 1 |
| 31-35 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 4 | 2 | 3 | 5 | 3 | 2 | 4 | 3 | 4 |
| 36-40 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | KISM | 1 | 3 | 4 | 4 | 3 | 5 | 5 | 3 | 3 |
| 46-50 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 1 | 3 | 2 | 1 | 1 | 4 | 1 | 3 | 2 |
| 36-40 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 4 | 2 | 4 | 3 | 3 | 2 | 1 | 3 | 3 |
| 36-40 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | KISM | 1 | 3 | 2 | 4 | 3 | 4 | 4 | 1 | 2 |
| 26-30 Years | Female | Diploma | Procurement Officer | 4-6 year | Registered | KISM | 2 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 3 |
| 46-50 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 1 | 2 | 3 | 3 | 1 | 2 | 2 | 3 | 1 |

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| 51-55 Years | Female | Diploma | Procurement Officer | 7-9 year | Registered | CIPS | 2 | 1 | 3 | 4 | 3 | 5 | 2 | 5 | 3 |
| 31-35 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 1 | 5 | 1 | 4 | 5 | 2 | 1 | 1 | 5 |
| 36-40 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | CIPS | 5 | 2 | 1 | 5 | 4 | 1 | 2 | 4 | 3 |
| 46-50 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 3 | 3 | 2 | 3 | 3 | 2 | 4 | 1 | 3 |
| 26-30 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 2 | 1 | 3 | 2 | 2 | 1 | 3 | 2 | 2 |
| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 1 | 3 | 1 | 2 | 3 | 2 | 3 | 5 | 3 |
| 26-30 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 3 | 4 | 2 | 2 | 1 | 3 | 5 | 2 | 2 |
| 41-45 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 3 | 3 | 2 | 5 | 2 | 3 | 2 | 4 | 1 |
| 26-30 Years | Female | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 1 | 1 | 3 | 3 | 2 | 4 | 3 | 1 | 4 |
| 51-55 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 3 | 2 | 2 | 1 | 5 | 2 | 4 | 3 | 3 |
| 41-45 Years | Male | Bachelor's Degree | Procurement Officer | 1-3 year | Registered | KISM | 4 | 2 | 4 | 3 | 2 | 3 | 3 | 2 | 1 |

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| 36-40 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 3 | 5 | 4 | 2 | 1 | 4 | 3 | 3 | 5 |
| 46-50 Years | Female | Bachelor's Degree | Procurement Officer | 4-6 year | Registered | KISM | 2 | 5 | 1 | 2 | 3 | 3 | 3 | 3 | 3 |
| 41-45 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 3 | 3 | 1 | 4 | 1 | 2 | 3 | 1 | 2 |
| 46-50 Years | Female | Diploma | Procurement Officer | 1-3 year | Registered | KISM | 5 | 1 | 1 | 4 | 5 | 3 | 1 | 2 | 4 |
| 51-55 Years | Female | Diploma | Procurement Officer | 7-9 year | Registered | CIPS | 3 | 1 | 1 | 1 | 5 | 3 | 1 | 3 | 3 |
| 46-50 Years | Male | Diploma | Procurement Officer | 4-6 year | Registered | CIPS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| cm1 | cm2 | cm3 | cm4 | cm5 | cm6 | cm7 | cm8 | cm9 | cm10 | cc1 | cc2 | cc3 | cc4 | cc5 | cc6 |
| 4 | 2 | 5 | 2 | 1 | 1 | 1 | 2 | 2 | 5 | 1 | 3 | 2 | 3 | 4 | 1 |
| 4 | 3 | 1 | 1 | 5 | 1 | 3 | 1 | 3 | 1 | 2 | 2 | 3 | 2 | 3 | 3 |
| 1 | 2 | 4 | 1 | 4 | 4 | 4 | 2 | 4 | 1 | 1 | 2 | 2 | 2 | 1 | 1 |
| 3 | 4 | 3 | 2 | 3 | 2 | 2 | 5 | 2 | 4 | 3 | 2 | 4 | 3 | 3 | 5 |
| 2 | 4 | 1 | 2 | 3 | 3 | 4 | 2 | 3 | 4 | 2 | 3 | 5 | 2 | 5 | 3 |
| 3 | 3 | 3 | 5 | 3 | 1 | 3 | 3 | 1 | 3 | 2 | 5 | 3 | 5 | 3 | 3 |
| 1 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 2 |

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| 2 | 1 | 1 | 1 | 4 | 3 | 2 | 1 | 5 | 3 | 2 | 5 | 2 | 3 | 3 | 3 | |
| 2 | 2 | 1 | 5 | 3 | 3 | 3 | 1 | 1 | 3 | 5 | 1 | 1 | 5 | 2 | 2 | |
| 1 | 1 | 5 | 3 | 4 | 2 | 3 | 3 | 2 | 5 | 2 | 2 | 1 | 2 | 4 | 3 | |
| 5 | 3 | 5 | 3 | 3 | 3 | 2 | 2 | 1 | 5 | 3 | 4 | 3 | 2 | 5 | 3 | |
| 5 | 2 | 3 | 3 | 2 | 4 | 3 | 3 | 1 | 1 | 5 | 1 | 2 | 1 | 1 | 1 | |
| 3 | 2 | 3 | 2 | 3 | 1 | 4 | 2 | 2 | 4 | 1 | 3 | 5 | 3 | 2 | 2 | |
| 3 | 2 | 4 | 4 | 1 | 4 | 4 | 1 | 3 | 1 | 2 | 5 | 2 | 3 | 2 | 1 | |
| 1 | 3 | 1 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 4 | 2 | 2 | 3 | 2 | 5 | |
| 3 | 2 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 2 | 4 | 4 | 4 | |
| 2 | 2 | 5 | 3 | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 1 | 3 | 3 | 4 | |
| 2 | 1 | 4 | 1 | 1 | 3 | 1 | 3 | 1 | 3 | 1 | 1 | 3 | 1 | 1 | 2 | |
| 2 | 1 | 3 | 3 | 5 | 4 | 2 | 2 | 3 | 1 | 3 | 3 | 4 | 3 | 4 | 2 | |
| 4 | 1 | 3 | 3 | 3 | 3 | 4 | 5 | 2 | 2 | 3 | 1 | 1 | 1 | 3 | 1 | |
| 4 | 5 | 3 | 1 | 2 | 3 | 2 | 3 | 1 | 3 | 1 | 1 | 3 | 1 | 1 | 3 | |
| 3 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 1 | 5 | 4 | 3 | 1 | 5 | 4 | 2 | |
| 1 | 2 | 3 | 2 | 3 | 2 | 1 | 2 | 3 | 1 | 2 | 2 | 3 | 3 | 2 | 5 | |
| 1 | 5 | 1 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 4 | 4 | |

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| 2 | 1 | 1 | 4 | 1 | 1 | 3 | 4 | 1 | 3 | 1 | 4 | 5 | 3 | 2 | 4 |
| 2 | 3 | 1 | 3 | 1 | 3 | 1 | 4 | 1 | 1 | 3 | 3 | 4 | 1 | 3 | 5 |
| 1 | 4 | 4 | 2 | 2 | 1 | 1 | 1 | 3 | 1 | 3 | 3 | 4 | 1 | 3 | 4 |
| 4 | 3 | 4 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 1 | 5 | 5 | 1 | 2 | 5 |
| 5 | 5 | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 4 | 2 | 1 |
| 1 | 3 | 3 | 5 | 3 | 4 | 1 | 3 | 2 | 1 | 2 | 4 | 4 | 3 | 1 | 3 |
| 1 | 3 | 4 | 5 | 3 | 5 | 3 | 2 | 1 | 3 | 4 | 1 | 4 | 1 | 3 | 5 |
| 2 | 2 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | 2 | 3 | 3 | 3 | 1 | 1 | 3 |
| 1 | 3 | 3 | 5 | 3 | 5 | 4 | 2 | 1 | 2 | 3 | 1 | 5 | 3 | 3 | 3 |
| 5 | 3 | 2 | 3 | 1 | 2 | 2 | 5 | 3 | 3 | 3 | 5 | 4 | 5 | 4 | 4 |
| 2 | 2 | 1 | 2 | 1 | 3 | 3 | 3 | 1 | 2 | 3 | 5 | 4 | 5 | 4 | 3 |
| 4 | 1 | 3 | 1 | 2 | 3 | 1 | 4 | 3 | 1 | 4 | 4 | 3 | 3 | 1 | 1 |
| 1 | 1 | 3 | 3 | 2 | 5 | 4 | 3 | 2 | 5 | 1 | 1 | 4 | 5 | 2 | 3 |
| 2 | 2 | 2 | 5 | 5 | 2 | 5 | 2 | 1 | 2 | 5 | 1 | 3 | 1 | 4 | 3 |
| 3 | 3 | 4 | 3 | 2 | 3 | 4 | 3 | 2 | 5 | 1 | 2 | 1 | 1 | 4 | 1 |
| 4 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 1 | 3 | 1 | 4 | 2 | 3 | 4 | 3 |
| 3 | 1 | 1 | 1 | 1 | 2 | 4 | 1 | 3 | 2 | 4 | 4 | 1 | 3 | 2 | 1 |

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| 1 | 1 | 4 | 4 | 3 | 1 | 3 | 3 | 1 | 4 | 2 | 3 | 5 | 4 | 2 | 2 |
| 4 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 2 | 1 | 2 | 1 | 1 | 1 | 5 |
| 5 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 3 | 1 | 1 | 2 | 2 |
| 1 | 3 | 5 | 3 | 2 | 3 | 3 | 5 | 4 | 2 | 5 | 4 | 1 | 1 | 2 | 3 |
| 4 | 1 | 3 | 4 | 5 | 1 | 1 | 3 | 1 | 2 | 1 | 3 | 4 | 4 | 3 | 3 |
| 4 | 2 | 5 | 4 | 2 | 5 | 2 | 2 | 2 | 3 | 4 | 5 | 4 | 2 | 4 | 3 |
| 4 | 3 | 3 | 3 | 5 | 3 | 2 | 3 | 3 | 2 | 2 | 5 | 3 | 5 | 3 | 5 |
| 4 | 2 | 4 | 2 | 3 | 2 | 3 | 3 | 1 | 5 | 2 | 1 | 4 | 3 | 5 | 2 |
| 1 | 1 | 3 | 5 | 5 | 1 | 1 | 3 | 4 | 4 | 3 | 4 | 1 | 3 | 3 | 2 |
| 2 | 3 | 2 | 5 | 1 | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 3 | 4 | 2 | 3 |
| 3 | 1 | 4 | 4 | 2 | 3 | 4 | 5 | 2 | 4 | 3 | 4 | 1 | 4 | 3 | 3 |
| 1 | 5 | 2 | 1 | 2 | 5 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 4 | 2 | 2 |
| 3 | 4 | 3 | 4 | 3 | 1 | 3 | 2 | 1 | 3 | 3 | 4 | 3 | 1 | 5 | 2 |
| 3 | 4 | 3 | 4 | 4 | 4 | 3 | 1 | 2 | 4 | 3 | 5 | 3 | 5 | 2 | 5 |
| 4 | 1 | 3 | 2 | 4 | 2 | 1 | 1 | 3 | 3 | 3 | 4 | 5 | 3 | 5 | 1 |
| 3 | 1 | 2 | 2 | 4 | 1 | 3 | 3 | 4 | 2 | 3 | 1 | 2 | 4 | 2 | 1 |
| 3 | 2 | 3 | 1 | 3 | 1 | 3 | 3 | 5 | 4 | 1 | 3 | 2 | 1 | 4 | 1 |

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| 2 | 2 | 1 | 5 | 1 | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 5 | 4 |
| 1 | 2 | 2 | 2 | 1 | 4 | 2 | 3 | 1 | 5 | 1 | 1 | 1 | 3 | 1 | 1 |
| 1 | 1 | 1 | 1 | 2 | 4 | 1 | 3 | 2 | 3 | 5 | 5 | 4 | 4 | 2 | 5 |
| 1 | 1 | 3 | 2 | 1 | 3 | 2 | 5 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 1 |
| 2 | 2 | 2 | 3 | 2 | 2 | 2 | 5 | 1 | 2 | 1 | 5 | 1 | 5 | 3 | 3 |
| 4 | 3 | 1 | 2 | 2 | 5 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 3 |
| 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 3 | 3 | 4 | 4 | 3 | 5 |
| 4 | 1 | 3 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 1 | 1 | 3 | 4 | 1 |
| 3 | 1 | 4 | 3 | 2 | 2 | 1 | 3 | 1 | 5 | 2 | 1 | 3 | 4 | 1 | 3 |
| 5 | 4 | 2 | 4 | 3 | 3 | 2 | 4 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 3 |
| 3 | 1 | 2 | 4 | 2 | 2 | 1 | 3 | 3 | 1 | 1 | 3 | 2 | 3 | 3 | 4 |
| 2 | 1 | 1 | 3 | 2 | 3 | 1 | 3 | 5 | 1 | 1 | 5 | 5 | 2 | 2 | 1 |
| 1 | 2 | 1 | 4 | 1 | 1 | 2 | 3 | 3 | 5 | 1 | 2 | 4 | 3 | 3 | 1 |
| 3 | 4 | 2 | 5 | 4 | 1 | 2 | 2 | 2 | 1 | 3 | 2 | 3 | 4 | 4 | 3 |
| 2 | 3 | 1 | 3 | 5 | 4 | 2 | 3 | 2 | 3 | 1 | 1 | 2 | 2 | 2 | 1 |
| 3 | 1 | 4 | 5 | 4 | 3 | 4 | 1 | 3 | 3 | 4 | 1 | 2 | 4 | 3 | 3 |
| 5 | 2 | 2 | 4 | 3 | 3 | 3 | 2 | 5 | 4 | 3 | 1 | 2 | 2 | 3 | 3 |

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| 1 | 2 | 1 | 4 | 2 | 3 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 4 | 2 |
| 4 | 3 | 1 | 2 | 3 | 3 | 3 | 1 | 3 | 1 | 4 | 1 | 5 | 4 | 3 | 5 |
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| 3 | 3 | 1 | 4 | 1 | 3 | 2 | 3 | 4 | 2 | 3 | 1 | 3 | 1 | 4 | 1 |
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| 5 | 3 | 1 | 2 | 4 | 3 | 3 | 1 | 3 | 2 | 1 | 3 | 5 | 1 | 3 | 1 |
| 5 | 3 | 3 | 5 | 3 | 4 | 5 | 5 | 2 | 4 | 1 | 3 | 3 | 2 | 1 | 2 |

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| 5 | 2 | 3 | 2 | 4 | 2 | 2 | 5 | 3 | 2 | 4 | 3 | 2 | 4 | 5 | 5 | |
| 3 | 2 | 3 | 3 | 2 | 2 | 4 | 1 | 4 | 3 | 3 | 4 | 4 | 2 | 2 | 1 | |
| 3 | 4 | 3 | 2 | 2 | 1 | 3 | 1 | 3 | 1 | 5 | 3 | 1 | 2 | 5 | 2 | |
| 1 | 4 | 3 | 1 | 5 | 2 | 3 | 5 | 3 | 1 | 3 | 5 | 5 | 3 | 4 | 3 | |
| 2 | 5 | 3 | 1 | 4 | 4 | 1 | 3 | 5 | 3 | 1 | 3 | 2 | 4 | 5 | 4 | |
| 2 | 4 | 3 | 2 | 4 | 3 | 2 | 2 | 5 | 5 | 4 | 5 | 3 | 3 | 5 | 3 | |
| 1 | 1 | 1 | 3 | 1 | 1 | 1 | 4 | 2 | 2 | 2 | 3 | 2 | 1 | 3 | 4 | |
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| 2 | 4 | 3 | 3 | 1 | 1 | 1 | 4 | 2 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | |
| 2 | 2 | 3 | 2 | 2 | 3 | 5 | 1 | 1 | 3 | 1 | 1 | 3 | 4 | 5 | 1 | |
| 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| pf8 | pf9 | pf10 | ss | br | dp | p | mn | d | ts | prc | sa | p1 | p2 | p3 | p4 | |
| 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | |
| 3 | 5 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 2 | 1 | 4 | 2 | 2 | |
| 4 | 4 | 3 | 4 | 2 | 2 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | |
| 1 | 3 | 3 | 4 | 4 | 3 | 1 | 1 | 1 | 3 | 4 | 4 | 2 | 4 | 2 | 3 | |
| 1 | 3 | 3 | 4 | 2 | 3 | 3 | 4 | 1 | 4 | 4 | 2 | 1 | 4 | 3 | 3 | |

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| 1 | 1 | 3 | 1 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 4 | 1 | 2 | 3 |
| 1 | 3 | 1 | 4 | 2 | 3 | 1 | 1 | 1 | 2 | 4 | 3 | 1 | 4 | 2 | 2 | 3 |
| 3 | 4 | 1 | 4 | 4 | 4 | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 3 | 2 | 2 | 1 |
| 1 | 4 | 2 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 3 | 4 | 2 | 4 | 4 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 |
| 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 3 | 1 | 2 | 1 |
| 2 | 1 | 3 | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 3 |
| 2 | 2 | 1 | 3 | 2 | 2 | 1 | 4 | 2 | 3 | 2 | 3 | 2 | 4 | 1 | 1 | 3 |
| 1 | 2 | 2 | 3 | 2 | 2 | 2 | 4 | 2 | 3 | 1 | 4 | 2 | 3 | 2 | 2 | 3 |
| 2 | 2 | 1 | 3 | 2 | 2 | 3 | 4 | 1 | 3 | 2 | 3 | 2 | 4 | 2 | 2 | 3 |
| 2 | 2 | 4 | 2 | 3 | 2 | 2 | 4 | 1 | 3 | 3 | 4 | 1 | 3 | 2 | 2 | 3 |
| 1 | 2 | 2 | 4 | 2 | 3 | 4 | 3 | 3 | 3 | 2 | 2 | 4 | 4 | 2 | 2 | 3 |
| 2 | 2 | 1 | 4 | 4 | 3 | 1 | 2 | 1 | 3 | 4 | 3 | 2 | 2 | 1 | 3 | 1 |
| 1 | 2 | 2 | 1 | 4 | 3 | 2 | 3 | 1 | 1 | 4 | 3 | 1 | 4 | 3 | 3 | 1 |
| 2 | 1 | 1 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 1 |
| 4 | 2 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 1 | 4 | 4 | 2 | 2 |
| 4 | 1 | 1 | 4 | 2 | 1 | 3 | 2 | 2 | 1 | 2 | 3 | 2 | 4 | 2 | 2 | 2 |

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| 2 | 5 | 5 | 4 | 4 | 3 | 1 | 2 | 2 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 |
| 2 | 2 | 2 | 4 | 1 | 3 | 1 | 1 | 3 | 4 | 4 | 3 | 2 | 3 | 3 | 2 | 4 |
| 2 | 1 | 2 | 4 | 1 | 2 | 2 | 1 | 2 | 4 | 4 | 4 | 3 | 4 | 3 | 1 | 1 |
| 2 | 1 | 2 | 4 | 4 | 3 | 2 | 1 | 3 | 1 | 4 | 4 | 2 | 4 | 4 | 3 | 2 |
| 5 | 2 | 4 | 3 | 2 | 2 | 4 | 2 | 3 | 3 | 1 | 2 | 1 | 4 | 1 | 2 | 3 |
| 2 | 1 | 1 | 4 | 4 | 1 | 4 | 2 | 1 | 1 | 1 | 1 | 3 | 4 | 2 | 2 | 4 |
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| 2 | 2 | 2 | 4 | 1 | 1 | 4 | 3 | 4 | 2 | 4 | 3 | 3 | 4 | 3 | 2 | 2 |
| 1 | 1 | 1 | 4 | 3 | 3 | 1 | 2 | 3 | 3 | 4 | 3 | 3 | 4 | 2 | 3 | 3 |
| 2 | 2 | 2 | 4 | 4 | 1 | 1 | 3 | 2 | 1 | 1 | 2 | 2 | 4 | 3 | 2 | 2 |
| 2 | 5 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 4 | 2 | 2 | 1 | 4 | 1 | 1 | 1 |
| 5 | 4 | 2 | 4 | 4 | 3 | 2 | 1 | 1 | 1 | 4 | 4 | 2 | 4 | 2 | 2 | 2 |
| 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 2 | 2 | 1 | 1 | 1 |
| 4 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 2 | 5 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 1 | 1 | 2 | 2 | 1 |
| 1 | 2 | 4 | 4 | 4 | 3 | 1 | 4 | 4 | 2 | 4 | 3 | 1 | 2 | 3 | 2 | 1 |

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| 1 | 5 | 2 | 3 | 4 | 4 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | |
| 2 | 1 | 2 | 4 | 4 | 2 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | |
| 2 | 2 | 4 | 4 | 4 | 4 | 2 | 3 | 3 | 2 | 4 | 3 | 1 | 4 | 3 | 4 | |
| 5 | 2 | 4 | 4 | 2 | 2 | 4 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | |
| 2 | 1 | 2 | 2 | 4 | 2 | 3 | 1 | 1 | 1 | 3 | 4 | 3 | 3 | 2 | 4 | |
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| 5 | 1 | 1 | 4 | 3 | 1 | 1 | 4 | 1 | 4 | 4 | 3 | 1 | 4 | 1 | 2 | |
| 2 | 4 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 4 | 2 | 4 | |
| 1 | 1 | 1 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 4 | 2 | 4 | |
| 5 | 2 | 2 | 4 | 4 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | 2 | 2 | |
| 1 | 2 | 4 | 4 | 2 | 2 | 4 | 4 | 1 | 3 | 3 | 2 | 2 | 4 | 3 | 1 | |
| 4 | 4 | 5 | 4 | 4 | 3 | 1 | 1 | 4 | 4 | 4 | 4 | 3 | 2 | 3 | 3 | |
| 5 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | |
| 2 | 1 | 4 | 1 | 3 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 3 | 2 | 2 | |
| 4 | 2 | 4 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | |
| 4 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | |
| 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | |

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| 4 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 4 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 |
| 2 | 2 | 4 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 4 |
| 2 | 2 | 4 | 2 | 3 | 1 | 4 | 1 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 |
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| 1 | 1 | 5 | 1 | 3 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 |
| 1 | 2 | 5 | 1 | 3 | 1 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 |
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| 2 | 5 | 2 | 1 | 3 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 2 | 1 |
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| 2 | 1 | 1 | 1 | 4 | 2 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
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| 2 | 3 | 2 | 1 | 1 | 2 | 1 | 3 | 3 | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 2 |
| 1 | 3 | 2 | 1 | 1 | 3 | 2 | 3 | 2 | 2 | 1 | 1 | 2 | 1 | 3 | 2 | 2 |
| 2 | 3 | 5 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 |
| 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
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| 3 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
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| 4 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 |
| 3 | 2 | 4 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 |
| 4 | 4 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 |
| 2 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| 4 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 3 | 5 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| 3 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 1 | 2 | 4 | 1 | 3 | 1 | 3 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 3 |
| 5 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 4 | 2 | 1 | 1 | 1 | 1 | 4 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 3 |
| 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| 3 | 2 | 4 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |

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| 4 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 2 |
| 3 | 2 | 5 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 5 | 4 | 3 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 1 |
| 2 | 5 | 1 | 2 | 3 | 1 | 4 | 1 | 1 | 3 | 1 | 2 | 3 | 2 | 2 | 3 | 2 |
| 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 |
| 3 | 2 | 3 | 2 | 3 | 1 | 3 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 3 |
| 4 | 1 | 4 | 1 | 3 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |
| 1 | 5 | 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 3 | 4 | 2 | 4 | 4 | 4 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 4 | 3 | 2 | 3 | 1 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 4 | 5 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 3 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 3 | 1 |
| 4 | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

## Output

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 |
| 1 | .764[a] | .583 | .574 | .46612 | .583 | 61.984 | 3 | 1 |

a. Predictors: (Constant), Feedback, Interdepartmental_relationships, Communication

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 40.402 | 3 | 13.467 | 61.984 | .000[b] |
| | Residual | 28.897 | 133 | .217 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Feedback, Interdepartmental_relationships, Communication

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .587 | .115 | | 5.088 | .000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Communication | .232 | .045 | .350 | 5.133 | .000 |
| | Interdepartmental_relationships | .234 | .050 | .300 | 4.704 | .000 |
| | Feedback | .249 | .043 | .354 | 5.795 | .000 |

a. Dependent Variable: Firm Performance

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 |
| 1 | .745[a] | .555 | .552 | .47769 | .555 | 168.699 | 1 | 1 |

a. Predictors: (Constant), Collaborative_capability

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 38.495 | 1 | 38.495 | 168.699 | .000[b] |
| | Residual | 30.805 | 135 | .228 | | |
| | Total | 69.299 | 136 | | | |

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Collaborative_capability

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .496 | .125 | | 3.958 | .000 |
| | Collaborative_capability | .758 | .058 | .745 | 12.988 | .000 |

a. Dependent Variable: Firm Performance