EFFECT OF STRATEGIC PROCUREMENT PRACTICES ON ORGANIZATIONAL PERFORMANCE IN PUBLIC ORGANIZATIONS: A CASE OF KENYA SCHOOL OF REVENUE ADMINISTRATION

BY
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UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

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BY
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A Project Research Submitted to Chandaria School of Business in Partial Fulfilment of the Requirement for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

SUMMER 2019
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University - Africa in Nairobi for academic credit.

Signed: ______________________    Date: ______________________

Flora Wanjiku (ID 656190)

This project report has been presented for examination with my approval as the appointed supervisor.

Signed: ______________________    Date: ______________________

Dr. Gabriel Okello, PhD

Signed: ______________________    Date: ______________________

Dean, Chandaria School of Business
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ABSTRACT

The purpose of this study was to investigate the effect of strategic procurement practices on organizational performance in public organizations, with a focus on Kenya School of Revenue Administration. The study was guided by the following research questions: What is the effect of supplier management on organizational performance in public organizations? How does technology utilization affect the organizational performance in public organizations? What effect does organizational capacity have on organizational performance in public organizations?

The study applied a descriptive correlational research design. Stratified random sampling technique was used to select a sample size of 87 from a population of 110 employees at KESRA. Data was collected using questionnaires. Descriptive statistics was used to describe the various demographic variables. Correlation and Linear regression analyses techniques were used to determine the relationship and effect of supplier management, technology and organization capacity on organizational performance. The study used the Statistical Package for Social Studies (SPSS) version 24 as a data analysis tool. The findings and results were presented using tables and figures.

In terms of the effect of supplier management on organizational performance, descriptive statistics revealed that most of the respondents who participated in this study agreed that their organization had a list of pre-qualified suppliers who are reliable (M=3.88, SD=1.20). Correlation analysis revealed that there was a statistical and significant strong relationship/association between supplier management and organizational performance, r (70) = 0.6477, p<.01. Linear regression analysis showed that 11.1% of the variability in the organizational performance was explained by supplier management, which statistically and significantly influence organizational performance of public organizations (R² = .111, β = 0.196, t = 2.874, p<.05).

On the effect of technological utilization on organizational performance, the descriptive statistics revealed that most of the employees agreed that technology utilization leads to simplification of processes (M=3.85, SD=1.2). Correlation analysis results showed that there was a statistically significant strong and positive association /relationship between technology
utilization and organizational performance, \( r (70) = 0.6809, p<0.01 \). Linear regression analysis showed that 19.1% of the variability in the organizational performance was explained by technology utilization, which statistically and significantly influence organizational performance of public organizations (\( R^2 = 0.19, \beta = 0.283, t = 3.918, p<0.05 \)).

On the effect of organizational capacity on organizational performance, the descriptive statistics revealed that most of the employees agreed that their organization had a distinct procurement function/department in place (\( M=3.88, SD=1.20 \)). Correlation analysis results showed that there was a statistically significant strong and positive association/relationship between organizational capacity and organizational performance, \( r (70) = 0.90, p<0.01 \). Linear regression analysis showed that 34.9% of the variability in the organizational performance was explained by organizational capacity, which statistically and significantly influence organizational performance of public organizations (\( R^2 = 0.349, \beta = 0.357, t = 6.038, p<0.05 \)).

The study concludes that strategic procurement practices though varying across organizations in terms of level of implementation are necessary for the overall optimal organization performance. The major driver for this is the leadership of the organization who must be able to understand and accommodate the impact strategic procurement has on the overall organizational performance. A shift towards strategic sourcing, e-procurement bid and vendor management software saves the organization time so that it can focus on organization initiatives and supplier relationships.

The study recommends that organizations corporate management must continuously identify the key strategic drivers and procurement practices they can incorporate as they seek to increase organizational performance. Consequently the study recommends that there is need for both top managers and other senior managers in firms such as KESRA to invest in research and development (R&D) to pursue directly new process and product innovation. There is also a need to invest in the employees of the organization to attract and retain employees with the right skill set.
ACKNOWLEDGEMENTS

I would like to thank the Almighty God for giving me strength and wisdom to complete this research project. Thank you to my supervisor Dr. Gabriel Okello for your invaluable advice, guidance and support which inspired me to undertake this project with zeal to completion. God bless you.
DEDICATION

I dedicate this research proposal to my children who have been my inspiration. To my husband, mother and siblings, your support and encouragement during the course of this study was priceless. Thank you.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Globally organizations are continuously facing the pressure of delivering results in an uncertain world. The modern business climate demands companies continuously improve processes and way of doing this to meet organizational objectives in a timely and cost-effective manner while maintaining the organization’s profitability and market relevance. In this dynamic global marketplace, procurement must play a leading role in capturing the value at stake (Spiller, Reinecke, Ungerman, & Teixeira, 2014). Organizations are increasingly confronted with greater global competition, changing markets & business models, cost reduction pressure, price volatility and scarcity of raw materials. They respond to these challenges by reducing their cost base, exploring new markets or partnerships, introducing new products and services to the market, and redesigning the organizational structure (Pande, 2018). Procurement has evolved over the years with its’s first traces seen throughout ancient history including the Egyptians as early as 3000 BC. Ancient Romans also used scribes to create contracts when the empire was engaged in trade with private suppliers. In Great Britain, procurement’s history dates back to William the conqueror, who wanted a concise way to record tax collections. The practice evolved to incorporate goods and services with the rise of the British Empire and its colonial pursuits (Whitmore, 2017).

(Schindler, 2017) further highlights that the industrial revolution then took place in the late 1700s and early 1800s. Productivity surged as machines and locomotives became the standard of production and transportation. While taking inventory was nothing new, the importance of procurement grew with productivity. The increased globalization and complex supply chain we see today mirrors what businesses during the Industrial Revolution experienced. The industrial revolution in Great Britain laid down the economic pattern of the world today (Wolfe, 2015). The World wars afterwards, forced procurement initiatives to shift back away from a strategic role to strictly clerical. Due to the scarcity of materials during war, procurement revolved heavily around order placement. It was not until the mid-1960s that procurement once again took on managerial role, on a wide-
scale. Procurement professionals emphasized competitive bidding, with price becoming the determining factor for most contracts (Nolan, 2019).

In the late 1990s, digital technology became a key driver for procurement progress and by the late 1990s, the role of procurement had begun its transition into strategic sourcing. In the developed economies procurement officials looked at supplier as partners and long-term contracts were encouraged. This was the beginning of procurement’s modern day evolution. With the shift towards strategic sourcing, e-procurement bid and vendor management software save the organization time so that it can focus on organization initiatives and supplier relationships (Nolan, 2019). Organizations are thus making a shift from traditional procurement to a more strategic function. This is in response to the changing market environment and the dynamics of global competition, price reduction pressure, need for value addition and the fight for competitive advantage. This is further driven by globalization which is the expansion and intensification of social relations and consciousness across world time and space. It is about growing worldwide interconnectivity (Steger, 2017).

Strategic procurement is concerned with the comprehensive organization goals and objectives. The strategic procurement practices are proactive in nature and are focused on providing value over the long term. It is a cyclical, holistic approach that looks beyond the traditional procurement of simple cost-saving measures but more on overall value. One major objective of strategic procurement is to engage with suppliers who align with the strategic business and operational goals (Sollish & Semanik, 2018). Globalization has forced companies to improve their internal processes, such as supply management, to remain successful. The level of competition in the marketplace has expanded to include both domestic and international markets. Purchasers no longer discuss lowest price but share information, collaborate, and talk to their suppliers about total costs, life-cycle costs, and cost reductions. This requires a focus on process improvements instead of short-term relationships and price reductions (Tate, 2014).

Spiller, Reinecke, Ungerger, & Teixeira (2014) point out that the sourcing strategy should be considered as a long-term process and be in line with the overall business strategy, business processes and integrate IT services. The ability to use data and connectivity to develop insights and drive superior performance has become a critical source of competitive advantage. Over time, the gains in operational measures lead to additional
gains in strategic measures. By connecting these elements the strategic approach to sourcing generate two advantages; it shifts the focus from only cost-cutting to long-term value creating of the enterprise, even though cost improvements can be made. Value creation is the process through which the participants make use of each other’s resources in order to generate value (Crane, Palazzo, Spence, & Matten, 2014). In the past, the management did not believe that strategic procurement is a value generating activity at all, and therefore, this area was entirely underinvested, omitted and not in the sphere of interests in some companies. This greatly affected the organization’s overall performance. Presently, strategic procurement functionaries are seen as decision-makers and gained recently more and more on prominence specially in multinational corporations. Since they reduce costs and ensure resource input availability for all departments within the companies (Ketchen, Crook, & Craighead, 2014).

According to the research by Hacket Group (2014), total cost ownership and value management which refers to the value beyond savings are some of the characteristics of world class procurement organizations. Strategic procurement practices to look into include properly staffing and aligning the procurement department, with the top leadership focusing on strategy and is less concerned about transactional ability. Best in class companies hire procurement managers who have strong communication and relationship management skills and the ability to think strategically and a focus on value creation. The managers must be tech savvy and capable to model complex problems. However, complex problem solving skill may not be sufficient if necessary soft skills are missing. Therefore hard skills combined with soft skills, definitely offer a competitive edge to managers resulting to increased operational efficiency for organizations (Dubey & Gunasekaran, 2015).

Traditionally it was perceived that procurement meant negotiation. This has now changed. It also includes amongst others sophisticated spend analyses & simulations using advanced technological tools, risk management, supplier performance management, project management and corporate social responsibility. Strategic procurement has been a strategy for global multinational companies for over 25 years. Medium sized and single country based organizations must embrace it as a strategic tool is an increasing competitive global market place. Global companies are good at finding ways to drive costs out of their business and work towards obtaining the benefits available from more advanced
There is need for the public companies to have a global outlook in term of practices and sourcing has been shown to have a significant impact on several aspects of firm procurement function to the global best practices all over the world. Strategic costs incurred by the companies dependent on its expenditures while maximizing the return on costs. (Hitt, Ireland, & Hoskisson, 2017).

David & David, (2017) highlight strategic implementation as a process with several aspects that consider strategic activities as internal competences which can lead to cost savings, capability improvement and stronger performance. This varies from company to company as its dependent on the company leadership. This case applies as well for the public entities in Kenya on matters procurement even with the existence of the PPAD 2015 Act which mainly focuses on the structural guidelines. The responsibility is still on the public organizations to come up with measures that increase their efficiencies while saving on costs (Mokogi, Mairura, & Ombui, 2015). Manyega & Okibo, (2015) and Odero & Shitseswa, ( 2017) in their studies point out procurement costs take up to 50%-60% of all costs incurred by public organizations. One way organizations do this is by benchmarking their procurement function to the global best practices all over the world. Strategic sourcing has been shown to have a significant impact on several aspects of firm performance (Kim, Suresh, & Kocabasoglu-Hillmer, 2015).

In the context of Kenya, In January 2016, the Public Procurement and Asset Disposal Act (PPADA) 2015 was implemented. The Public Procurement and Assets Disposal Act 2015 gives effect to article 227 of the Constitution of Kenya on efficiency and define the roles of regulatory bodies (PPRA, 2019). The PPADA 2015 establishes operational procedures for efficient public procurement and for the disposal of unserviceable, obsolete or surplus stores, assets and equipment by public entities and to provide for other related matters. The Act applies to all public entities including state organs, departments, state corporations, county governments, companies owned by public entities and bodies in which the national or county government has a controlling interest, among others (PPRA, 2019). Both in Public and Private organizations, the key goal of organizational strategies is to enable an organization gain and maintain competitive advantage in the industry while maximizing the return on costs. (Hitt, Ireland, & Hoskisson, 2017).

There is need for the public companies to have a global outlook in term of practices and operations so as to create the most value addition and benefits to all its stakeholders while maximizing value for money on its expenditures (O'Brien, 2014). The procurement function has come a long way from being seen as a mere clerical function expected to change a requisition into a purchase order into a strategic function with significant potential
for delivering huge cost savings. Progressive firms recognize that this requires attention to suppliers. Competition is no longer between firms but rather between coordinated supply chains and networks of firms (Monczka, Handfield, Giunipero, & Patterson, 2016).

Kenya School of Revenue Administration (KESRA) is the Kenya Revenue Authority’s premier training school specializing in Tax and Customs Administration, Fiscal Policy and Management. The school is one of the only four World Customs Organization (WCO) accredited Regional Training Centre’s (RTC) in Eastern and Southern Africa; others include Mauritius, South Africa and Zimbabwe. KESRA offers certificate programs, Diploma programs, Post Graduate Diploma programs in conjunction with JKUAT and a Master’s program in partnership with Moi University. KESRA in achieving its mandate also partners globally with The London School of Economics and Political Science, World Customs Organization and The Organization for Economic Co-operation and Development (OECD). KESRA in addition to being KRA’s training arm responsible for all in house trainings, it is also trusted with the mandate to build capacity for customs officials in the region and has the responsibility of training all the Customs Clearing Agents operating in Kenya (KRA, 2019).

1.2 Statement of the Problem

Globalization is referred as the free movement of goods, services and people across the world in a seamless and integrated manner. It refers to the expansion and intensification of social relations and consciousness across world time and space. It is about growing worldwide interconnectivity (Steger, 2017). With this comes increased competition as more and more players compete for the same limited resources. There is therefore need more than ever for organization’s to continuously improve their operation efficiency and effectiveness to achieve the organization goals while at the same time increasing returns to their shareholders (Johnson, Whittington, Scholes, Angwin, & Regner, 2017).

While appreciating the frame work on procurement operations as stipulated in the PPADA 2015, the Act provides a standardized framework for the procurement of goods and services across all public sector entities. It establishes procedures for efficient public procurement and for the disposal of unserviceable, obsolete or surplus stores, assets and equipment by public entities and to provide for other related matters. The act applies to all public entities including state organs, departments, state corporations, county governments, companies
owned by public entities and bodies in which the national or county government has a controlling interest, among others (GOK, 2015).

This one size fits all approach has created challenges for many Government Owned entities. Furthermore it is still up to the leadership of the public entities to identify strategic activities they can undertake within their procurement function to increase operational efficiency of the organization. Increased competition for limited resources cuts across both the public and private entities and it is paramount for public entities to put in place measures that give them competitive advantage. Strategic procurement is therefore essential for competitiveness of procurement function in any organization, be it a private entity or a public one. The overall procurement output depends on how it is strategically positioned to serve the organization. There is some confirmation that sourcing capability has positive impact on firms operational efficiency and execution. Further research is required to solidify the proof (Normanyo, Ansah, & Boakye, 2016).

Locally a number of studies have been done in the area of procurement with the issues ranging from e- procurement to case studies of public institutions. Munyao & Moronge, (2018) highlight the importance of automation of the procurement process to minimize costs and the risk of manually interfering with the process to favor specific players. The findings of this study indicated that adoption of e- procurement positively and significantly affects the procurement performance in public universities in Kenya. Audi, (2014) concluded that multinationals in Kenya have a lot to benefit by practicing strategic procurement and the need for further research and wider coverage of strategic procurement practices. Mokogi, Mairura, and Ombui (2015), in their study confirmed that procurement practices are very significant in enhancing the performance of commercial state owned enterprises in Nairobi County. Odero and Shiteseswa, (2017) in their study concluded that procurement practices affect procurement performance of public sugar manufacturing firms in western Kenya and recommends further research should focus on other areas such as the importance of supplier selection.

Based on the highlighted factors this research therefore aims to bring out strategic procurement best practices and some of the benefits associated with the practices in the context of public organizations. It seeks to relate procurement strategies and overall organizational performance of public organizations in Kenya. It will address questions on what is the effect of supplier management on operation performance in public
organizations in Kenya with a focus on KESRA? How does technology utilization affect the operation performance? What effect does organizational capacity have on operation performance?

1.3 Purpose of the Study

The purpose of the study is to highlight the effect of strategic procurement practices on organizational performance in public organizations, with a focus on Kenya School of Revenue Administration.

1.4 Research Questions

1.4.1 What is the effect of supplier management on organizational performance in public organizations?

1.4.2 How does technology utilization affect the organizational performance in public organizations?

1.4.3 What effect does organizational capacity have on organizational performance in public organizations?

1.5 Significance of the Study

The findings of the study will be of significance to the following stakeholders;

1.5.1 Kenya School of Revenue Administration and Related industry
The study sought to identify the strategic practices applied in the company and the impact on the procurement function’s performance and in effect to the overall organization performance. This information will be most useful to KESRA as a check on its current status as well as to implement more strategies if required. Public entities and upcoming small and medium sized enterprises will also use this information to learn on best practice in regard to strategic procurement and its benefits.

1.5.2 Academicians
The findings of the study will act as source of empirical data and reference point for other scholars interested in the field, particularly those who will be interested in furthering knowledge on strategic procurement’s impact on organization performance.
1.5.3 Policy Makers
To policy makers, the results of this study may serve to appraise the current status of existing policies and make required changes and updates if necessitated.

1.6 Scope of the Study
The scope of the study is limited to the KESRA headquarters in Nairobi with a population interest of 110 and a sample size of 87. The study will be conducted during the period of January 2019 to July 2019 and will be guided by the following research questions: What is the effect of supplier management on organizational performance in public organizations? How does technology utilization affect the organizational performance in public organizations? What effect does organizational capacity have on organizational performance in public organizations? Since the data to be collected is directly linked to the organizational information a limitation would be in the full disclosure of information by the respondents. This would be mitigated by assurance of confidentiality to the respondents.

1.7 Definition of Terms
1.7.1 Procurement
Procurement is the process of identifying and obtaining goods and services. Procurement practices are a set of activities undertaken by an organization to promote effective management of its supply chain (Sollish & Semanik, 2018). Suvittawatt (2017) further adds that procurement also supports the effective organization’s competitive advantage which needs high effective supply chain operation.

1.7.2 Strategic Procurement
Strategic Procurement is concerned with the comprehensive organization goals and objectives. Strategic sourcing practices are proactive in nature and are focused on providing value over the long term. It is a cyclical, holistic approach that looks beyond simple cost-savings measures but more on overall value (Audi, 2014). Strategic procurement entails organizations engaging suppliers that align with the strategic business and operational goals of the organization with an aim of maximizing value addition (Sollish & Semanik, 2018). Hong & Kwon (2015) define strategic procurement as procurement as a source of achieving competitive advantage.
1.7.3 Competitive Advantage

This is the organization’s ability to creating and sustaining superior performance. Competitive advantage is obtained when an organization develops or acquires a set of attributes or executes actions that allow it to outperform its competitors (Wang, 2014). Grant (2016) views it as a benefit resulting from the matching internal strength to external success factors.

1.7.4 Globalization

Globalization is the expansion and intensification of social relations and consciousness across world time and space. It is about growing worldwide interconnectivity (Steger, 2017).

1.7.5 Global Procurement

A procurement strategy in which a business seeks to find the most cost efficient location for sourcing goods and services, even if the location is in a foreign country (Nyanchoka & Namusonge, 2014).

1.7.6 Supplier Management

Supplier management is a wholistic approach that entails supplier onboarding, supplier qualification, verification and selection, supplier performance management, supplier compliance management and supplier relationship management and collaboration (Smith, 2014).

1.7.7 Organizational Performance

This is the ability of an organization to meet its goals and achieve its overall mission (UNDP, 2018).

1.7.8 Organizational Capacity

Organizational capacity refers to an organization’s potential to perform, its ability to successfully apply its skills and resources to accomplish its goals and satisfy its
stakeholders expectations. (UNDP, 2018). It is the ability of an organization to fulfil its mission through a blend of sound management, strong governance, and a persistent rededication to assessing and achieving results (Manas, 2014).

1.7.9 Technology Utilization

Technology utilization refers to the incorporation of technology in an organization’s operations and activities. It is the application of technological resources to achieve organizational goals (Johnson, Whittington, Scholes, Angwin, & Regner, 2017).

1.7.8 Public Organizations

Public organizations are defined as those owned and operated by the Government, providing services to the public (Leiyan, 2016).

1.8 Chapter Summary

This chapter has provided a background of the study, the problem the general and specific objectives of the study. The chapter has also discussed the scope and significance of the study. A definition of terms as used within the context of the study has also been listed. Chapter two will provide the literature review of the study. Chapter three will cover the methodology, chapter four deals with results and findings and finally chapter five which covers the discussion, conclusions and recommendation.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Chapter two presents literature on the various theories and concepts on the subject of strategic procurement. The literature review is guided by the research questions of this study. Thus, the literature reviewed has been presented under three main sub-headings of the effect of supplier management, technology utilization and organizational capacity on operation performance in public organizations. The last sub-section of the chapter provides a summary of the literature review.

2.2 Effect of Supplier Management on Operational Performance

Supplier management is a wholistic approach that entails supplier qualification, verification, selection and supplier performance management which also encompasses compliance management and supplier development which entails supplier collaboration. Smith (2014). Abdollahi, Arvan, & Razmi, (2015) further highlight that supplier management is regarded as the cornerstone of successful purchasing and supply management to maintain and enhance the competitive edge in organizations. This section discusses the dimensions of supplier management in terms of supplier selection, supplier development data management and supplier performance management.

2.2.1 Supplier Selection

Suppliers are key stakeholders in any organization and play a key role in organizations attaining or not meeting their set objectives and goals. Supplier evaluation and selection is a process of finding the appropriate suppliers who can provide the best and quality products and/ or services at the right time and at the right amount with an acceptable price. Supplier selection problem is vital for a company operating in a competitive environment.

To be competitive, the company should be a continuous effort to ensure the right suppliers are engaged (Dikmen, 2015). Strategic supplier selection and evaluation decisions is not solely based on traditional selection criteria, such as cost, quality and delivery. In strategic sourcing, other additional criteria’s should be considered with the aim of developing a long-term supplier relationship such as quality management practices, long-term management practices, financial strength, technology and innovativeness level, suppliers’
cooperative attitude, supplier’s co-design capabilities, and cost reduction capabilities (Navasiri, Kumar, Garza Reyes, Lim, & Kumari, 2016).

Krop & Iravo (2016) based on their study concluded that supplier selection has significant effect on procurement function performance and thus an organizations overall performance. This being brought about by the fact that quality of products and services provided are directly linked to the suppliers selected by the organization and can in that way impact the final product or services being provided to the end customer. In their evaluation of the effects of supplier selection on procurement performance of public institutions, Manyega & Okibo (2015) reported successful supplier selection is a source for competitive advantage; they affect competitive performance of public institutions positively if effectively selected. A well managed and structured approach to supplier selection ensures that the suppliers have the skills and knowledge to do the job and that they are developed to their full potential. The institution will benefit from this through cost saving; financial costs, mitigating delay costs and reputational costs, improved quality, effectiveness and efficiency. Good supplier selection makes a significant difference to an organization’s future that can reduce operational costs and improve the quality of its products and make rapid responses to the customers’ demand (Abdollahi, et al., 2015).

CIPS (2017) points out that supplier selection to ensure compatibility between buyer, in this case organizations and supplier in terms of shared business ethics, similar standards of excellence, commitment to continuous improvement are important in performance of suppliers. In a purchasing context the inclusion of the user departments in the definition of the goods or services or the scope of works to be provided by the prospective suppliers has the effect of providing clarity on required supplier roles and enables the selection of suitable suppliers for strengthening organizational strategic capabilities which ultimately leads to increased organizational performance (Nair & Das, 2015).

The principal of unity of command in classical organization theory highlights the implications for role clarity and role expectations in complex organizations (Rizzo, et al., 1970). The principle of unity of command states that there should be one plan for a group of activities having the same objectives. Participation in strategic decision making is one mechanism to ensure unity of command. To this effect, participation of user departments in the strategic decision of supplier selection enables the purchasers and the suppliers to
understand and appreciate the interest of multiple internal stakeholders. This early on leads to a good partnership and greater value addition to the organization (Nair & Das, 2015). The principle of unity of command in classical organization theory highlights the implications for role clarity and role expectations in complex organizations (Rizzo et al., 1970). The principle of unity of command states that there should be one plan for a group of activities having the same objective. In essence, the unity of command principle keeps a check on incompatible expectations. Participation in strategic decision making and planning process is one of the mechanisms to ensure unity of command (Sollish & Semanik, 2018).

The overall success of a supply includes meeting goals related to cost, schedule, quality and safety. Time, cost and quality are three major factors that are of primary concern to the main parties involved in procurement. A good supplier is expected to supply on time, within budgeted cost and to the desired level of quality. Duren, Doree, & Voordijk, (2015) suggest that one method of improving performance is to prequalify suppliers prior to the bidding process so as to ensure that suppliers are able to execute the assigned project in accordance with client and project objectives. In this way an organization at any one time maintains an up to date list of prequalified suppliers. Suppliers prequalification is therefore a commonly used process for identifying a pool of competitive, competent and capable suppliers from which tenders or bids may be sought (Chirchir & Gachunga, 2015).

The other factors that firms consider in choosing potential supply partners is the safety record of the supplier, the business references provided by the supplier, and the supplier’s customer base. The environmental, health and safety record of the supplier partners is critical. Safety typically is an important goal in the purchasing own operations, and they feel it is important that their suppliers share that fundamental philosophy. Second, because the firm becomes closely involved with its supply partners, the problems with the supplier reflect directly on the buying firm's reputation. The environmental health and safety standards set by the law should be met by all the players (WHO, 2019). Competitive advantage can be created by collaborating with suppliers to create added value. This will be achieved by the organization creating and sustaining superior performance due to embracing strategic procurement by engaging the right caliber of suppliers to partner with. Competitive advantage will be obtained when the organization
develops and acquires a set of attributes and executes strategies that allow it to outperform its competitors (Wang, 2014).

2.2.2 Supplier Development

Supplier development can be defined as any effort from buying organizations to improve the capacity, capability and performance of supplier so that the purchasing needs of buying organization can be fulfilled by the supplier. It is a set of practices or activities of a buying organization for its supplier to improve the performance of the supplier and to meet buyer’s expectation (Inemek and Matthyssens, 2013). It is further described as a long-term cooperative strategy initiated by a buying organization to enhance a supplier’s performance and/or capabilities so that a supplier is able to meet the buying organization’s supply needs in a more effective and reliable way which will give additional competitive advantage to buyer to become more competitive in market. The main goal of supplier development is to increase the supplier’s capability to fulfill supply needs over short or long-term time periods. (Chavhan, Mahajan, & Sarang, 2015).

Spiller, Reinecke, Ungerman, & Teixeira (2014) highlighted that literature generally supports that the supplier development plays a vital role in improving performance in purchasing and contributes strategically to overall organizational performance and effectiveness. Luzzini, Amann, Caniato, Essig, & Ronchi (2015) in their study support the definition of supplier development and collaboration as good practice and established to have positive impact on innovation performance of organizations. Deloitte’s Global CPO Survey 2014 found increasing levels of supplier collaboration and restructuring of existing relationships among the top procurement levels. They established benefits resulting from the successful supplier collaboration and relationship building activities as reduction of costs, drive and monitoring of performance of strategic suppliers in a transparent manner, maintaining focus on key measures that support business objectives, management of supply risk and compliance with responsible sourcing, ethics and regulatory requirements by strengthening global transparency and visibility of the relationship and the fostering of business development and innovation by jointly identifying and implementing opportunities that create long-term value for both organizations (Deloitte, 2015).

Olendo & Kavale (2016) established from their study that value creation has led to increase of organizational performance as there was understanding and closeness between customers,
long range relationship and contract to encourage suppliers to improve quality of their products and that inventory related cost has been reduced through lead time. The management of the supplier relationship is also tied to performance through the competitive advantage it can create (O’Brien, 2014). Supplier engagement and development eventually builds trust between suppliers and the organization and both collectively work towards the achievements of the organizational goals. In this way organizations are thus intentionally continuously working towards better standards from the suppliers impacting delivery and performance of the organization at the same time reducing the risk of non-performance and delivery of the suppliers (Sollish & Semanik, 2018).

2.2.3 Supplier Performance Management

Mose, Ombui, & Iravo (2018) assert that supplier performance measurement is a process, not an event. It requires support from stakeholders besides procurement, as performance impacts on firm’s success. A SPM process should include key stakeholders who interact with suppliers as well as the suppliers themselves. A SPM program not only ensures that those benefits identified in the contracting stage are delivered, but that value delivery continues for the life of the contract. As companies increasingly focus on their core competencies and outsource a great percentage of work, their success becomes ever more dependent on the performance of strategic suppliers. Balanced reporting ensures that trade-offs are transparent and properly managed. KPIs should cascade from strategy to tactics, and to the operational level. Successful organizations enable employees to understand the performance levers they influence and how they affect overall performance Deloitte (2017).

Monitoring supplier performance all through the contractual period is important in order to ensure overall department performance. Therefore, organizations need to measure suppliers' performance dynamically and continually inform them on improvement measures. Therefore, an effective supplier performance measurement framework is required, which is easily adoptable, efficient, reliable, flexible, and compatible to other organizational systems. Further, an effective supplier performance measurement method provides feedback to suppliers to improve their performance. Performance of organizations is highly dependent on the choice of the supplier. Performance measurement was also an important evaluative tool which further aided the identification of suppliers
and determined the relationship with former and current suppliers as highlighted in the study by (Kiplagat & Kiarie, 2015).

Dey, Bhattacharya, & Ho (2015) point out procurement cost comprises of 40–60% of organizational cost for many organizations. Suppliers not only contribute in product innovation, but also help achieve highly effective production processes. Enhancement of supplier performance helps achieve overall organizational excellence. Perceived improvements in organizational performance are associated with improvements in supplier performance and there is a statistically significant association between improvements in supplier quality management, customers’ relations, and the quality-tendency groups (Kiarie, 2017).

2.3 Effect of Technology Utilization on Operational Performance

Technology utilization refers to the incorporation of technology in an organization's operations and activities. It is the application of technological resources to achieve organizational goals (Johnson, Whittington, Scholes, Angwin, & Regner, 2017). This section discusses the dimensions of technology utilization in terms of E-procurement, Data Management and Risk Management

2.3.1 E-procurement

E-procurement can be defined as a system that utilizes internet technologies and services to automate and streamline an organization's processes – from requisition to payment. It refers to the integration of procurement process, which includes operations such as negotiation, ordering, receipt, and post-purchase review (Lysons & Farrington, 2016). A growing body of literature suggests that e-procurement can deliver substantial benefits to organizations, including reduced prices for goods and services, lower transaction costs, reduced supply chain inventories, higher speed, and better levels of customer service (Brandon-Jones & Kauppi, 2018). The application technology to procurement is altering the impact of this function. Strategic procurement is becoming more predictive, transactional procurement is becoming more automated, and supplier management is becoming more proactive. All of these are integrated through intelligent procurement operations and systems (Deloitte, 2017).
The emergence of e-procurement is not only expected to reduce the cost of the purchasing process but also to alter the activities of purchasing, transforming the purchasing process from an operational into a strategic activity (Gupta & Narian, 2014). E-procurement is one way of mitigating public procurement fraud in public organizations by ensuring accountability, transparency and achievement of best money for value contracts (Khairul & Rahman, 2015). E-procurement can facilitate real time access to information, automated procurement procedures, more consistency in bidding procedures, and importantly can reduce the human intervention in bidding processes. Research found that these anti-corruption factors lead to reducing the chances of corruption (Neupane, Soar, & Vaidya, 2014).

Munyao & Moronge (2018) in their study concluded that adoption of E-procurement system leads to a positive procurement performance thus influencing positively the overall organization performance. The shift towards strategic sourcing, e-procurement bid and vendor management software save the organization time so that it can focus on organization initiatives and supplier relationships (Nolan, 2018). This requires investment in the right technology that carries features that include being user friendly, easy to use, inbuilt report generating abilities and the capability to support different users and departments. This will enable the organization not to have to invest in different types of technology for each department thus making the process complicated to the users (Lysons & Farrington, 2016). While the benefits of technology are well documented, technology investment comes at a cost. Sollish & Semanik (2018) point out management has the responsibility of making decisions on what activities and projects resources will be allocated to. In recognizing the importance of an efficient purchase-to-pay process, organizations should adopt strategies and mechanisms to get the greatest benefits from technology by choosing the right fit system and software to begin with (Toktas, Balav, Teoman, & Altunbey, 2014). Good training is also seen as to play a part in reducing the challenges of resistance to change.

2.3.2 Data Management

Technology is a tool that offers a platform of creating timely, detailed and accurate reports which are then shared with the executive leadership to facilitate strategic decision making. Knowledge, which refers to information, intelligence, and expertise, is the basis of technology and its application. In the competitive landscape of the twenty-first century,
knowledge is a critical organizational resource and an increasingly valuable source of competitive advantage (Hitt, Ireland, & Hoskisson, 2017). Technology is providing access to previously unavailable data or bringing order to massive but unstructured data sets, driving more complex analysis and better supplier strategies; and enabling more efficient operations. Spend categories are being digitally enabled and the markets they access are being digitized. New agile operating models are evolving to accelerate and deliver digital and analytical capabilities (Deloitte, 2015).

Application of disruptive technologies to procurement is fundamentally altering the impact of this function. Strategic sourcing is becoming more predictive, transactional procurement is becoming more automated, and supplier relationship management is becoming more proactive. Digital procurement solutions are enabling this future by providing access to previously unavailable data, or bringing order to massive but unstructured data sets; driving more complex analysis and better supplier strategies; and enabling more efficient operations (Deloitte, 2017). The use of e-procurement can strengthen search ability, facilitate faster and more accurate data transmission, provide quicker and more plentiful information, greater transparency, and achieve relatively low communications and coordination cost, along with that, it enhances inter-organizational coordination and improves relationships among business partners (Sollish & Semanik, 2018).

Organizations operate in increasingly complex and uncertain environments with high risks of supply disruptions making supply management an increasingly complex task. In the longer term supply disruptions can negatively affect the shareholder price and a company's long-term financial performance. A supply disruption can also mean inability to meet demand and satisfy customers (CIPS, 2017). Innovation through technology has created procurement systems which contribute in mitigating these risks by providing accurate information quickly and periodically and providing advanced tools for data analysis simplifying the process of obtaining information facilitating prompt decision making (Lysons & Farrington, 2016).

2.3.3 Risk Management

Risk results from the direct and indirect adverse consequences of outcomes and events that were not accounted for or that were ill prepared for, and concerns their effects on individuals,
firms or society at large (Johnson, Whittington, Scholes, Angwin, & Regner, 2017). Risk management is the process of identifying, assessing, and controlling risks arising from operational factors and making decisions that balance risk with offsetting benefits. It is an ongoing process. It should be a key element and an integral part of the procurement activities (Sollish & Semanik, 2018). Risk management becomes more important as a larger part of production and development is done by partners. There is therefore a need for a structured risk management capability within the procurement organization since procurement has become a major focal point for companies risk management concerns (CIPS, 2017). Convergent trends like supply networks becoming globalized, culturally different companies stepping onto the global playing field and more dependence on eternal parties will increase firms awareness of supply risk and their perception of where risk lie (Deloitte, 2017).

Technology plays a key role in restructuring the way global players manage risk. It assists in enhanced data capturing, secured data management, better retrieval time and also in providing advanced tools for data analysis. As organizations embrace technological solutions for the procurement function and the organizations as a whole there is need to be mindful of the compatibility and integration of those systems to those already existing in the organization to reap the full benefits without creating complexities in the operations (Monczka, Handfield, Giunipero, & Patterson, 2016). 46% of procurement leaders cite lack of data integration as the main barrier to an integrated risk management view in organizations,(Deloitte, 2015). According to Infosys (2017), technology has emerged as a potent solution which could solve the lack of integration as global business today is moving towards collective risk management, bringing all stakeholders to a single point. This is providing organizations an opportunity to better calibrate their risk mitigation instruments allowing them to be proactive and stay ahead. Overall, technology now plays a massive role in integrating a firm’s systems across the various departments and teams which triggers forward-thinking, leading to informed decision-making (Monczka, Handfield, Giunipero, & Patterson, 2016).

Integrated information sharing forms the base of the hierarchy of the benefits of incorporating technology in procurement operations (Toktas, Balav, Teoman, & Altunbey, 2014). Teams that put a greater emphasis on qualitative and quantitative supplier data analysis will be able to quickly and successfully identify weak spots, risks and
opportunities in the global supply chain - improving the strategies and plans needed to manage the suppliers, and ultimately both businesses, for continued success (O'Brien, 2014). These measures enable the employees focus on attaining the organization’s core objectives which is strategic in itself as productivity of the employees increases affecting the overall organization performance whilst reducing the risks the organization is exposed to (Johnson, Whittington, Scholes, Angwin, & Regner, 2017).

2.4 Effect of Organizational Capacity on Operational Performance

Organizational capacity refers to an organization’s potential to perform, its ability to successfully apply its skills and resources to accomplish its goals and satisfy its stakeholders expectations (UNDP, 2018). It is the ability of an organization to fulfill its mission through a blend of sound management, strong governance, and a persistent rededication to assessing and achieving results (Manas, 2014). This section discusses the dimensions of organizational capacity in terms of employee skills, organizational policies and management support.

2.4.1 Employee Skills

As the role of procurement has evolved from its humble, clerical, origins, to its present strategic focus, the long run the decision for a company to invest in the right procurement team made up of members with the right qualifications and skills will result to reduction of costs as the right decisions are made on the onset ensuring minimal rework on supplier selection or contract thus saving costs for the organization (Ketchen, Crook, & Christopher, 2014). Suvittawatt (2017) points out that procurement represents major part of organization costs, then procurement employees are very important for organizations for their crucial role in financial responsibilities since the procurement tasks directly involve profits and losses of the organizations. Strategic procurement practices not only impact the performance of the procurement department but the overall performance of an organization (Ketchen, Crook, & Craighead, 2014).

As the procurement function becomes more sophisticated it evolves from playing a defensive role for instance supporting cost control to actively contributing to value creation and with that places a demand on organizations ensuring they have the right team with the necessary skills to reap these benefits. The procurement professionals have to improve
their procurement knowledge and skills as the business environment has changed and the competition for limited resources is increasing (Spiller, Reinecke, Ungerman, & Teixeira, 2014). An organizations top leadership focuses more on strategy and not the operational abilities. There is a need for sourcing professionals who combine deep technical insights with broad leadership skills, particularly an ability to manage cross-functional teams and skill in managing outsourced relationships (Pande, 2018). To be effective, the procurement professional must continually explore new methods and seek out alternatives that will improve existing processes. In turn, these improvements will spawn new strategies. Tactics and strategies thus feed one another in a cycle of continuous improvement (Sollish & Semanik, 2018). Another way to maximize economies of skill is to ensure that best practices, once established, are shared widely across the organization. Research revealed that procurement leaders have effective knowledge-management processes in place to capture, codify, and communicate the best practices. Action that maintain clearly defined procurement practices, processes, and methods and facilitates extensive sharing and application in all global businesses (Spiller, Reinecke, Ungerman, & Teixeira, 2014).

Procurement professionals undertaking strategic procurement practices will have a cross functional integration approach in their performance (Pande, 2018). The procurement role calls for them to interact with all other departments and teams in the organization. By virtue of them having this cross functional approach they can act as champions and gatekeepers to ensure every team in the organization are always aligned to the organizational goals. Procurement professionals must acquire competencies and capabilities that foster integration with other key business functions, which would call for more research on how to develop these competencies through talent management (Foerstl, Hartmann, Wynstra, & Moser, 2014). Organizations sometimes find themselves in the peculiar position of having more cost saving opportunities than there are staff members to implement them. This can be a hinderance to organizations that want to implement strategic sourcing but lacks the manpower as well as the resources to obtain them (Sollish & Semanik, 2016).

2.4.2 Organizational Policies

A policy is a governing set of principles which establish the general parameters for an organization to follow in carrying out its responsibilities. A procurement policy manual should, at a minimum, establish guidance for the procurement organization and any delegated purchasing authority (CIPS, 2015). Procurement Policies and procedures are
crucial in all procurement activities. Policies establish strategic guidelines and controls to promote the company’s vision within its day-to-day operations. Policies can incent or prevent certain behaviors within a company. Good policy not only provides the basis for process controls but also reflects the values and priorities of the enterprise for instance establishing levels of spend authority (KPMG, 2015).

By developing and establishing robust policies in line with an organization’s business needs and enterprise values, the firm could better enforce what, how, and from whom materials and services were purchased. Purchasing policies fundamentally contribute to business success in several ways: improve sales margins, increase better quality and logistics arrangements with supplier and more competitive supplier’s base and more effective business relationships (Sollish & Semanik, 2018). Procurement policies entail a set of rules and regulations put in place to govern the process of acquiring goods and services needed by an organization to function efficiently. Effective procurement policies are strategies followed when making organization purchasing decisions. Implementing effective procurement policies significantly improve the effectiveness of purchasing decisions (Mutai, 2015).

Recognized best practices maintain that organizations should have and adhere to an up to date procurement policy that reflects the goals and mission of an organization. This will guide procurement operations. Policies will then mitigate the risk of loss due to clearly outlining the accepted procedures and roles and responsibilities thus reducing the risk of conflict of interest (Lysons & Farrington, 2016). Risk mitigation involves lessening the impact or magnitude of a risk event. You can do this by reducing the probability that the risk will occur, reducing the risk event’s impact, or both, to an acceptable level (Hong & Kwon, 2015). The procurement team should ensure there exist easily accessible policies and procedures that form a basis of guidance to the organization. The policies should be frequently updated to ensure they are up to date. Presenting them in a realistic and simple manner will increase compliance. Policies go hand in hand with compliance. Companies should periodically review their policies and controls to ensure that they are not creating bottlenecks in the operations of an organization (Sollish & Semanik, 2018).

CIPS (2015) outlines the importance of influencing and improving ethical practices in the supply function and activities through implementing ethical procurement policies
and practices across the organization. It is the leadership responsibility in pursuing value addition for the various shareholders to contribute to the development and use of documented policies and procedures for the procurement and supply function and ensure their application by colleagues and stakeholders (Pande, 2018). Documented policies and procedures for the work of procurement and supply outlines the responsibilities for procurement function, regulations relating to competition, levels of delegated authority across the organization, responsibilities for the stages of the sourcing, supplier relationships and payment of invoices (CIPS, 2015). Policies support the cost-effective and efficient use of funds that is so important for public servants, government ministers and members of the general public, who are anxious to see ethical and good use of public money (Deloitte, 2015).

Ndung’u & Ochiri (2017) study on the effect of procurement policy on customer service delivery established that there are a number of organizational factors that influence the procurement policies and its effects on service delivery. These factors include structure and role clarity, preparation of quality and reliable procurement plans, clear channels of communication, the type of goods and services being procured, the procurement employees’ qualifications and numbers. The management’s role in its success is key. There is need for organization management to periodically review its procurement policies so as to minimize losses and thus improve performance (Makabira & Waiganjo, 2014). Overall efficiency in procurement policies of the public entities in Kenya is enhanced by government bodies such as the Public Procurement Regulatory Authority (PPRA) and Kenya Institute of Supply Management (KISM) which assist in assuring customers, employees and stakeholders’ confidence (Leiyan, 2016).

2.4.3 Management Support

Competitive advantage can be defined as favorable position an organization seeks in order to be more profitable than its rivals. The leverage that a business has over its competitors (Porter, 1998). This will be achieved by the organization creating and sustaining superior performance due to embracing strategic actions and decisions. Competitive advantage will be obtained when the organization develops and acquires a set of attributes and executes strategies that allow it to outperform its competitors (Wang, 2014). A key strategy in this age is management utilizing strategic procurement practices
as the strategic tool it is for overall superior business performance (Lysons & Farrington, 2016).

For any organization to reap the benefits of procurement as a driver towards the achievements of strategic goals, the procurement function needs to move from the traditional operations towards a strategic role. This can only be achievable with the support of the leadership of the organization. The leadership set the structure, policies and procedures in an organization (Johnson, Whittington, Scholes, Angwin & Regner, 2014). Procuring the right tools in terms of technology comes at a cost. The adoption of an e-procurement technology is majorly a managerial investment decision to purchase technology. An organizations principle objective is to increase the economic value of its shareholders. Business decisions need the approval of key stakeholders who rely on the management to give beneficial guidance and convincing them of the benefits of improving the procurement process might be difficult to begin with. While an organization might have all the best intention in investing in systems, resources, technology and trainings, benefits should outweigh the immediate investment costs and this also takes time (Johnson, Whittington, Scholes, Angwin, & Regner, 2014).

Recruiting the right team will also need resource allocation. Top management must recognize that improving purchasing performance requires talented and well trained managerial personnel and must intentionally allocate the resources (Foerstl, Hartmann, Wynstra, & Moser, 2014). Once the technology and the right team is in place, additional resources should be set aside for training of the organization on any new system, process or technology that may be introduced (Tate, 2014).

Organizational culture influences to a large extent how the employees react to change. The traditional procurement differs significantly with the strategic procurement practices. It will be important for the organization management to communicate well any expected changes to the employees and provide the necessary support which includes training and provision of the right tools and systems to impact the successful implementation of the strategic procurement practices (Hitt, Ireland, & Hoskisson, 2017). Strategy implementation is not as easy as formulation. Poor implementation can lead to failure of the proposed strategies thus negatively affecting the overall performance of the organization (Sollish & Semanik, 2011). Management needs to ensure its organization have the right skills and approach in strategy implementation. The right action items need
to be set in place for success. The right resources should be in place and proper communication between all the various stakeholders. The rights and responsibility of all the parties need to be well articulated and clear for all. The top management support and guidance on this cannot be over emphasized in its overall impact on the success or failure in strategy implementation (Johnson, Whittington, Scholes, Angwin, & Regner, 2014).

2.5 Chapter Summary

Chapter two discusses literature review in line with the research questions for this study. The chapter is presented in sections that are in subsections of the research questions. The next chapter presents the research methods and techniques that was applied in this study.
CHAPTER THREE

3.0. RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research methodology that will be utilized for this study. It gives a systematic procedure followed to achieve the objectives of the study. Research methodology is the collective term used to describe the scientific approach to conducting research. This chapter presents the research methodology, research design as well as the sampling approach. It also presents the data collection techniques, the analysis technique and also presents the steps taken by the researcher to ensure data validity and reliability.

3.2 Research Design

Research design is the detailed plan that a researcher utilizes as a guide while organizing his/her study activities. Through a research design, a researcher is able to provide detailed arrangements on how the study is to be conducted. (Schindler 2018). It is the overall plan and strategy that informs the key decisions that are adopted in research. There exists different types of research designs and a researcher can choose from an exploratory, descriptive explanatory, case study, cross sectional studies, longitudinal or time series research designs. This is informed by the overall objective of the study or research (Bryman & Bell, 2015). For the purpose of this study, descriptive correlation research design will be used. This research design leverages the advantages of both descriptive research approaches and correlational research designs in order to explain the natural occurrence of phenomenon as well as explain the relationships between the variables of a study (Schindler, 2018).

3.3 Population and Sampling Design

3.3.1 Population

Schindler (2018) observes that a population is the total collection of elements about which one wants to make inferences. Population is a larger collection of all subjects from where a sample is drawn. Target population in statistics is the specific population about which information is desired. The target population of the study was the staff working at the Kenya School of Revenue Administration (KESRA) which is the Kenya Revenue Authority’s
premier training school specializing in Tax and Customs Administration, Fiscal Policy and Management. The target population of this study was 110 members of the staff comprising managers, financial officers, procurement officers, logistics officers and operational officers in KESRA. Table 3.1 shows population distribution.

Table 3.1: Distribution of the Target Population in different Departments

<table>
<thead>
<tr>
<th>Department</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance/Accounts Department</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Human Resource Department</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Operations</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Marketing Department</td>
<td>41</td>
<td>37</td>
</tr>
<tr>
<td>Procurement and Logistics</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>110</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Sources: KESRA (2019)

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

Sampling frame as the listing of the elements in the population from which the sample maybe drawn (Creswell & Creswell, 2018). Ideally the sampling frame would be a complete list of every member of the population, but in reality it is usually a subset of the target population to which the researcher has or can gain access. It is a list of all population units from which the sample is selected (Cooper & Schindler, 2014). In the study, the sample frame will constitute the 110 staff of Magnate Ventures Limited, KESRA at their headquarters in Nairobi, Kenya. The sample frame was identified by the staff details kept by the company’s human resources department.

3.3.2.2 Sampling Technique

Sampling technique refers to the systems and processes used to select the sample size. A sample being a sub group of the bigger population (Saunders & Lewis, 2019). There exist two broad classes of sampling techniques: probability and non-probability sampling techniques. Non-probability sampling includes quota sampling, convenience sampling, purposive sampling, self-selection sampling and snowball sampling. Probability sampling includes
simple random sampling, stratified random sampling, systematic random sampling and cluster sampling (Bryman & Bell, 2015).

In this study we applied stratified sampling technique, a probability sampling technique because the population was divided homogeneously into different strata’s which are the different departments; Finance/Accounts Department, Human Resource Department, Operations, Marketing Department and Procurement and Logistics.

### 3.3.2.3 Sample Size

A sample size is a finite part of statistical population whose properties are studied to gain information about the whole population. It is the number of units, which can be the people accessible to the study (Bryman & Bell, 2015). A sample size is used in the case the population in consideration is too large or when there are constraints of time and resources (Schindler, 2018). There are different approaches to determining the sample size. These include using a census for small populations, imitating a sample size of similar studies, using published tables, and also applying formulas to calculate a sample size (Singh & Masaku, 2014). In this study we estimated the sample size using Yamane formula.

The study adopted Yamane (1998) formula for a finite population. The sample size is given by:

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

With an error margin of 5%, the estimated sample size becomes

$$n = \frac{110}{1 + 110(0.05^2)} = 86.27$$

This gives an estimated sample size of 87 employees which was distributed proportionately to the size of the population as shown in Table 3.2.
Table 3.2: Distribution of the Sampled Population across Departments

<table>
<thead>
<tr>
<th>Departments</th>
<th>Population</th>
<th>Number of sampled staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance/Accounts</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Human Resource</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Operations</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>Marketing Department</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>Procurement and Logistics</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>110</strong></td>
<td><strong>87</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

Data collection is a process of collecting information from all the relevant sources to find answers to the research problem, test the hypothesis and evaluate the outcomes (Cooper & Schindler, 2014). Data collection can be divided into two categories, secondary and primary methods of data collection. Secondary data is a type of data that has already been published in books, newspapers, magazines, journals, online portals. Primary data on the other hand is defined as data used in research originally obtained through the direct efforts of the researcher (Saunders & Lewis, 2019). Primary data collection methods can be divided into two groups, qualitative and quantitative. Qualitative data collection method includes case studies, observation focus groups and interviews. Quantitative data collection methods include use of questionnaires, surveys, census and experiments (Schindler, 2018).

Data in this study was collected by administering of questionnaires to respondents who were considered in the sampling to obtain the qualitative data. A questionnaire is described as an objective method of obtaining information from members of a population. It is a cost-effective way of gathering quantitative data for further analysis. Questionnaires offer anonymity thus encouraging the respondents to answer. It provides a channel for the standardized collection of data that can be compared easily (Saunders & Lewis, 2016).

A questionnaire with a 5-point Likert rating scale was used to collect data. The questionnaire was divided into four sections. the first section capturing the demographics of the respondents such as gender, age and education, with the remaining sections focusing on the research questions. Section two focused on identifying the supplier management practices in place at the organization and its effect on organizational performance, section
three focused on technological utilization and its effect on organizational performance and section four focused on organizational capacity and its effect on organizational performance.

3.5 Research Procedures

Research procedures refer to the actions that the researcher took to collect the type of data identified as crucial for the study. Research procedure included the preparation of the structured questionnaire after which a pilot test was carried out before the actual study was done. Pilot testing in a research is in most cases concern with testing the workability, validity and reliability of the questionnaire (Cooper & Schindler, 2014). Further, Saunders and Lewis (2016) on their part, refers to pilot test as a small-scale research to explore questioner, checklist, or observation to lower the chances of respondents from experiencing challenges in answering the question and of data recording challenges as well as to permit some assessment of the question(s) reliability and validity of the gathered data. The study randomly selected 10% of the staff from Kenya revenue Authority headquarters for piloting test to ascertain validity as well as reliability of the study instrument. The pilot assisted to evaluate the completeness, precision, accuracy and clarity of the questionnaires. This ensured the data collection tool used was reliable, and no errors were present. The pilot testing determined the validity of the test instrument in this case the questionnaires. Validity is to the extent to which evidence as well as experts back-up the explanations of test scores involved by suggested uses of tests (Bryman & Bell, 2015).

Cronbach’s alpha analysis was carried out to determine the level of reliability and validity of the test items. Reliability is described as the dependability of measurement, or the extent to which a tool measures in a similar way every time it is employed under the same situation with the same subject (Bryman & Bell, 2015). To test reliability of the questionnaires, the responses were analyzed and the result of the reliability test produced. The researcher determined Cronbach’s Alpha which estimate the internal consistencies of data in measuring a given construct. The greater the score, the extra reliable the developed scale is. Bryman and Bell (2015) indicated that a Cronbach’s alpha of 0.7 is an acceptable reliability. The findings in Table 3.3 below shows that all the variables were reliable since their Cronbach Alpha value were greater than 70 percent in which the organizational
performance had the highest Cronbach Alpha value of 0.8132 and organizational capacity had the lowest Cronbach Alpha value of 0.7177.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Alpha value</th>
<th>No of Items</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Performance</td>
<td>0.8132</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>Supplier Management</td>
<td>0.7513</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>Technology Utilization</td>
<td>0.7550</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>Organizational Capacity</td>
<td>0.7177</td>
<td>5</td>
<td>Reliable</td>
</tr>
<tr>
<td>Overall</td>
<td>0.8301</td>
<td>20</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

After the review of the final questionnaire, hard copy questionnaires were administered to the respondents during the official working hours. The study adopted a drop and pick strategy to collect the data. This meant that the questionnaires were distributed to the respondents for filling and later picked after two days. The services of a trained research assistant were used to collect data to ensure reliable data is collected. Ethical considerations were pertinent to this study. Prior to commencing the study, The researcher obtained consent from USIU and KESRA, the case study organization. A research permit was also obtained from NACOSTI. The study respected and honored all guarantees of privacy, confidentiality and anonymity in carrying out research. Participants were informed of the nature of the study and were allowed to choose whether to participate or not. The respondents were assured of confidentiality of the information provided in the questionnaires through a written introductory letter to ensure high response rate. Confidentiality in this case referring to the separation of any personal identifying information provided by participants from the data and ensuring protection of the information shared (Schindler, 2018). The data gathered from the study was scrutinized and processed accurately in order to ensure proper data management.

3.6 Data Analysis

Data analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data. It has two components, descriptive and inferential. In this study data was analyzed using descriptive and inferential
statistics. The descriptive statistics contained measures of central tendency and involved using frequency tables, graphs, mean, standard deviation and percentages to describe, organize, summarize, and present raw data enabling the researcher to meaningfully describe distribution of measurements (Cooper & Schindler, 2018). Inferential statistics involved using correlation and linear regression analysis as methods of drawing conclusions from the sample data. Correlation analysis is determining the strength and direction of the relationship. Linear regression analysis is the modeling of relationship between two variables (Creswell & Creswell, 2018). Prior to conducting linear regression, pre-requisite test such as tests for normality, heteroscedasticity, multicollinearity and linearity were done. The linear regression model that was used this study was as follows

The linear regression analysis model used in this study was as follows,

\[ y = \beta_0 + \beta_1 X_1 + \varepsilon \]

Where

\( y \) = Organizational performance

If \( X_i = X_1 \) then we have supplier management

If \( X_i = X_2 \) then we have use of technological utilization

If \( X_i = X_3 \) then we have organizational capacity.

\( \beta_i \) is the Coefficients of the independent variables, where \( i = 1,2,3 \)

\( \varepsilon \) is the error term

3.7 Chapter Summary

This chapter presented the research methods of the study. The descriptive correlation research design is selected. The population and sample size of the study is 110 and 87 respondents respectively. A structured questionnaire consisting of Likert scale and close ended questions was designed to collect the primary data. Both inferential and descriptive statistics were used to analyze the data. The next chapter of the study presents the results and findings of the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the results and findings of the study based on the research questions. The first section presents the descriptive analyses of the general information of the respondents. The second section presents the findings on the effect of supplier management on the organizational performance at KESRA. The third section presents the findings on the effect of technology on the organizational performance at KESRA. The fourth section presents the findings on the effect of organization capacity on the organizational performance at KESRA.

4.2 General Information

This section presents the results of the general information of the respondents which included response rate and demographic characteristics such as gender, age bracket, and educational qualifications.

4.2.1 Response Rate

The questionnaires that the researcher administered were 87 out of which only 70 fully filled questionnaires were returned and the results are as shown in Table 4.1. Table 4.1 below shows that there was a response rate of 80.45%.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned</td>
<td>70</td>
<td>80.45%</td>
</tr>
<tr>
<td>Not Returned</td>
<td>17</td>
<td>19.55%</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
4.2.2 Gender

The respondents were asked to indicate their gender and their response was as shown in Figure 4.1. The results showed that about 79% of the respondents were male whereas only about 21% were female.

![Gender Chart]

**Figure 4. 1: Gender**

4.2.3 Age Bracket

The study sought to determine the age category distribution of the respondents and the results are shown in Figure 4.2. The findings show that about 14% were aged between 24 and below years whereas approximately 43% were aged between 25-34 years. About 30% were aged between 35-44 years while about 13% were aged 45 years and above.
Figure 4.2: Age of respondents

4.2.4 Level of Education

The respondents were asked to indicate their level of education and their response was as shown in Figure 4.3. The findings revealed that about 14% of the respondents had secondary education whereby approximately 26% had attained up college education level. Also, about 43% had university level of education while approximately 17% had post graduate education level.
4.2.5 Duration with the Enterprise

The study sought to determine the period in which the participants had been with the enterprises and the findings are shown in Table 4.2. From the findings, about 10% of the participants had been with their enterprise for less than one year whereas approximately 19% had been with the enterprise for a period of between 1 and 5 years whereas about 46% had been with the enterprise for between 6 and 10 years. Further, the study established that about 26% of the respondents reported that they had been with the enterprise for more than 10 years.

<table>
<thead>
<tr>
<th>Working Duration</th>
<th>Freq.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 1 year</td>
<td>7</td>
<td>10.00</td>
</tr>
<tr>
<td>1-5 years</td>
<td>13</td>
<td>18.57</td>
</tr>
<tr>
<td>6-10 years</td>
<td>32</td>
<td>45.71</td>
</tr>
<tr>
<td>Above 10 years</td>
<td>18</td>
<td>25.71</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
4.2.6 Current Department Worked

The respondents were asked to indicate which department they belonged to. The results are as shown in Table 4.3. Approximately about 11% of the respondents belonged finance/accounts department whereas about 26% were under human resource department. In addition to these approximately 19% belonged to operations department with 20% being in marketing docket. On the other hand, about 24% belonged to procurement and logistics.

Table 4.3: Current Department Worked

<table>
<thead>
<tr>
<th>Current Department</th>
<th>Freq.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance/Accounts</td>
<td>8</td>
<td>11.43</td>
</tr>
<tr>
<td>Human Resource</td>
<td>18</td>
<td>25.71</td>
</tr>
<tr>
<td>Operations</td>
<td>13</td>
<td>18.57</td>
</tr>
<tr>
<td>Marketing</td>
<td>14</td>
<td>20.00</td>
</tr>
<tr>
<td>Procurement and Logistics</td>
<td>17</td>
<td>24.29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

4.3 Effect of Supplier Management on Organizational Performance

The study sought to determine the effect of supplier management on organizational performance. The study conducted descriptive, correlation and linear regression analysis.

4.3.1 Descriptive Analysis

The study sought to establish the strongest variable for the dimensions/ indicators of supplier management and effect of supplier management on organizational performance. This was done by comparing the means of the variables describing the supplier management dimension/ indicators. To achieve this, the respondents were asked to rate their opinions on the statements on supplier management according to their level of knowledge on a scale of 1 to 5. Where, 1=Strongly Disagree, 2= Disagree, 3= neither Agree nor Disagree, 4= Agree, 5= Strongly Agree. Data was analyzed using descriptive statistics of mean and standard deviation. Variables with a mean close to 4.0 and above represented agreed and strongly agreed while those with a mean close to 3.0 represented “neutral” and those with a mean of 2.0 and below represented disagreed and strongly disagreed. At the same time, standard deviation was used to indicate the consensus of the respondents. The results are as shown in Table 4.4 and Table 4.5.
4.3.1.1 Ratings of Supplier Management

The findings from Table 4.4 indicated that most of the respondents who participated in this study agreed that their organization had a list of pre-qualified suppliers who are reliable. This variable for the supplier management that stood out across all the surveyed employees of KESRA with the closest mean to 5 points out of maximum five points ($M=3.88, SD=1.20$).

Table 4.4: Ratings of Supplier Management

<table>
<thead>
<tr>
<th>Supplier Management</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization has a list of pre-qualified suppliers who are reliable.</td>
<td></td>
<td>5.96</td>
<td>1.20</td>
</tr>
<tr>
<td>Suppliers are engaged through capacity buildings and collaborations to improve</td>
<td></td>
<td>9.27</td>
<td>1.35</td>
</tr>
<tr>
<td>product design and quality of products</td>
<td></td>
<td>17.88</td>
<td></td>
</tr>
<tr>
<td>Our organization has a process to ensure effective feedback, consultation and/or</td>
<td></td>
<td>11.26</td>
<td>1.36</td>
</tr>
<tr>
<td>dialogue with suppliers.</td>
<td></td>
<td>23.84</td>
<td></td>
</tr>
<tr>
<td>Suppliers are trained on the importance of company values and rules of conduct</td>
<td></td>
<td>5.96</td>
<td>1.26</td>
</tr>
<tr>
<td>with regard to social, environmental and economic goals</td>
<td></td>
<td>28.48</td>
<td></td>
</tr>
<tr>
<td>Am incorporated in the decision of a supplier award whose output affects my</td>
<td></td>
<td>7.95</td>
<td>1.28</td>
</tr>
<tr>
<td>departments deliverables</td>
<td></td>
<td>27.81</td>
<td></td>
</tr>
</tbody>
</table>

4.3.1.2 Ratings of Effect of Supplier Management on Organizational Performance

The findings from Table 4.5 indicated that most of the respondents who participated in this study agreed that the caliber of suppliers engaged by the organization enables them to achieve their objectives. This variable for the supplier management that stood out across all the surveyed employees of KESRA with the closest mean to 5 points out of maximum five points ($M=3.67, SD=1.4$).
**Table 4.5: Ratings of Effect of Supplier Management on Organizational Performance**

<table>
<thead>
<tr>
<th>Effect of Supplier Management on organizational performance</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The caliber of suppliers engaged by the organization enables us to achieve our objectives</td>
<td>7.95 21.19 8.61 20.53 41.72 3.67 1.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier capacity building and collaboration leads to performance improvement and competitive advantage</td>
<td>15.89 21.85 10.6 26.49 25.17 3.23 1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The continuous supplier relationship management facilitates supplier feedback on performance increases and improves their overall output and reduces risks of poor performance</td>
<td>20.53 21.85 12.58 25.83 19.21 3.01 1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous supplier training and engagements lead to increased compliance in terms of legal, contractual, corporate and regulatory requirements</td>
<td>14.57 22.52 12.58 25.83 24.5 3.23 1.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department user’s involvement in the supplier selection process leads to dealing with the right suppliers</td>
<td>16.56 26.49 17.22 25.17 14.57 2.95 1.33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.3.2 Correlations Analysis

Correlation analysis was done to determine the strength and direction of relationship/association between supplier management and organizational performance among the employees of KESRA. The findings in Table 4.6 show that there was a statistical and significant strong relationship/association between supplier management and organizational performance, $r (70) = 0.6477, p<.01$.

**Table 4.6: Correlation between Supplier Management and Organizational Performance**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Organizational Performance</th>
<th>Supplier management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Performance</td>
<td>Pearson Correlation Sig. (2-tailed) n=70</td>
<td>1.000</td>
</tr>
<tr>
<td>Supplier Management</td>
<td>Pearson Correlation Sig. (2-tailed) n=70</td>
<td>0.6477 (0.000)</td>
</tr>
</tbody>
</table>
4.3.3 Assumptions for Linear Regression Analysis

Tests for Normality, Linearity, Heteroscedasticity and Multicollinearity were done to ascertain the assumption of linear regression analysis.

4.3.3.1 Test for Normality

The Shapiro Wilk test for normality was conducted to test whether the supplier management variable was normally distributed the results were presented in Table 4.7. The result shows that the p-values for the supplier management is greater than 0.05 indicating that supplier management variable was normally distributed at 5% level of significance.

Table 4. 7: Normality Test for Supplier Management

<table>
<thead>
<tr>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>statistic</td>
<td>df</td>
</tr>
<tr>
<td>Supplier Management</td>
<td>.099</td>
</tr>
</tbody>
</table>

\(a\).Lilliefors Significance Correction

4.3.3.2 Test for Linearity

The study used deviation from linearity test to ascertain the assumption of linearity and the findings are in Table 4.8. The findings show that there is a linear relationship between supplier management and organizational performance.

Table 4. 8: Linearity Test for Supplier Management and Organizational Performance

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Performance *</td>
<td>Between (Combined)</td>
<td>6.202</td>
<td>17</td>
<td>.365</td>
</tr>
<tr>
<td>Supplier Management Groups</td>
<td>Linearity</td>
<td>2.736</td>
<td>1</td>
<td>2.736</td>
</tr>
<tr>
<td></td>
<td>Deviation from Linearity</td>
<td>3.466</td>
<td>16</td>
<td>.217</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>18.386</td>
<td>50</td>
<td>.368</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>24.588</td>
<td>67</td>
<td></td>
</tr>
</tbody>
</table>
4.3.3.3 Test for Heteroscedasticity

Heteroscedasticity refers to variation of the error terms across all the observations under study. The study conducted test for heteroscedasticity to determine if there was a problem of lack of constant variance in the data. The study adopted residual plot using standardized residual against standardized predicted values. If there is systematic pattern then we can conclude that the model suffers from heteroscedasticity. The findings are as indicted in figure 4.4. The results show that the model does not suffer from heteroscedasticity and thus homoscedasticity because there is no systematic pattern observed.

![Residual Plot for Heteroscedasticity test for Supplier Management and Organizational Performance](image)

Figure 4. 4: Residual Plot for Heteroscedasticity test for Supplier Management and Organizational Performance

4.3.3.4 Test for Multicollinearity

To test whether the level of multicollinearity in the estimated models would be tolerated, Variance Inflation Factor (VIF) was used and the results were presented in Table 4.9. The findings show that the obtained Variance Inflation Factor (VIF) for supplier management was 2.09 meaning the value was less than 10 and tolerance value was 0.4785. Thus, it can
be concluded that there were no multicollinearity symptoms between the study variables and regression analysis could then be carried out.

Table 4. 9: Multicollinearity Test for Supplier Management and Organizational Performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier Management</td>
<td>2.09</td>
<td>0.4785</td>
</tr>
<tr>
<td>Total</td>
<td>2.09</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Organizational Performance

4.3.4 Linear Regression Analysis

Linear regression analysis was conducted to establish the effect of supplier management on organizational performance in public organizations. This section presents the findings of linear regression analysis in terms of model summary, regression analysis of variance (ANOVA) and the coefficient table.

4.3.4.1 Model Summary

Table 4.10 presents the model summary for the regression analysis of supplier management and organizational performance. The findings of the model summary indicate that supplier management variable explained about 11.1% of the variability in the organizational performance ($R^2 = .111$).

Table 4.10: Model Summary for Linear Relationship between Supplier Management and Organizational Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.334$^a$</td>
<td>.111</td>
<td>.098</td>
<td>.57541</td>
</tr>
</tbody>
</table>

a.Predictor : (Constant), Supplier Management

4.3.4.2 Regression Analysis of Variance

The linear regression F statistics shown in Table 4.11 indicates that there was a statistical and significant linear relationship between supplier management and organizational performance ($F (1, 66) = 8.262, p<.05$).

Table 4.11: ANOVA for Linear Relationship between Supplier Management and Organizational Performance
### 4.3.4.3 Regression Coefficients

The regression coefficients presented in Table 4.12 indicates that supplier management can statistically and significantly influence organizational performance of public organizations ($\beta = 0.196$, $t = 2.874$, $p < .05$).

**Table 4.12: Regression Coefficient for Linear Relationship between supplier management and organizational performance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.613</td>
<td>.248</td>
<td>10.539</td>
<td>.000</td>
</tr>
<tr>
<td>Supplier Management</td>
<td>.196</td>
<td>.068</td>
<td>.334</td>
<td>2.874</td>
</tr>
</tbody>
</table>

The estimated regression equation from Table 4.11 is specified by:

Organizational Performance = 2.613 + 0.196 * Supplier Management

The model shows that supplier management variable positively influences the organizational performance that is a unit mean index increase in supplier management applied increases the organizational performance by a positive mean index value of 0.196.

### 4.4 Effect of Technology Utilization Organizational Performance

The study sought to determine the effect of technology utilization on organizational performance. The study conducted descriptive and correlation and linear regression analysis.
4.4.1 Descriptive Analysis

This section focuses on the effect of technology utilization in procurement practices on organizational performance. To achieve this, the respondents were asked to rate their opinions on the statements focusing on technology utilization according to their level of knowledge on a scale of 1 to 5. Where, 1=Strongly Disagree, 2= Disagree, 3= neither Agree nor Disagree, 4= Agree, 5= Strongly Agree. Data was analyzed using descriptive statistics of mean and standard deviation. Variables with a mean close to 4.0 and above represented agreed and strongly agreed while those with a mean close to 3.0 represented “neutral” and those with a mean of 2.0 and below represented disagreed and strongly disagreed. At the same time, standard deviation was used to indicate the consensus of the respondents. The results are as presented in table 4.13 and 4.13.

4.4.1.1 Ratings of Supplier Management

The findings from Table 4.13 indicated that most of the respondents who participated in this study agreed that technology utilization leads to simplification of processes. This variable for the technology utilization that stood out across all the surveyed employees of KESRA with the closest mean to 5 points out of maximum five points (\(M=3.85, SD=1.2\)).

<table>
<thead>
<tr>
<th>Technology Utilization</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization has in place an appropriate form of E-procurement process to automate the procurement process</td>
<td>3.97 16.56 29.14 27.81 22.52</td>
<td>3.48  1.13</td>
<td></td>
</tr>
<tr>
<td>Technology utilization in the procurement process increases efficiency of the organization as a whole</td>
<td>4.64 21.19 26.49 31.13 16.56</td>
<td>3.34  1.12</td>
<td></td>
</tr>
<tr>
<td>Technology utilization leads to simplification of processes</td>
<td>3.31 14.57 17.22 23.84 41.06</td>
<td>3.85  1.20</td>
<td></td>
</tr>
<tr>
<td>E-procurement system is well integrated with other systems in operation</td>
<td>5.3 11.26 13.25 52.98 17.22</td>
<td>3.66  1.06</td>
<td></td>
</tr>
<tr>
<td>Technology utilization in the procurement process is vital in data management</td>
<td>6.62 13.25 9.27 41.06 29.8</td>
<td>3.74  1.21</td>
<td></td>
</tr>
</tbody>
</table>
4.4.1.2 Ratings of Effect of Technology Utilization on Organizational Performance

The findings from Table 4.14 indicated that most of the respondents who participated in this study agreed that in their organization, the employees are trained in the use of the e-procurement process. This variable for the technology utilization that stood out across all the surveyed employees of KESRA with the closest mean to 5 points out of maximum five points and small variation \( (M=4.088, SD=0.98) \).

Table 4. 14: Effect of Technology Utilization on Organizational Performance

<table>
<thead>
<tr>
<th>Effect of technology utilization on organizational performance</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The employees are trained in the use of the e-procurement process.</td>
<td>3.31 5.96 3.31 53.64 33.77 4.08 0.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of e-procurement reduces ordering costs e.g. stationery costs, secretarial expenses, follow up costs</td>
<td>3.97 7.28 24.5 31.13 33.11 3.82 1.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The period from requisition (ordering) to issuing (order fulfillment) is reduced when e-procurement application is used</td>
<td>5.96 15.89 5.96 25.83 46.36 3.91 1.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online procurement facilitates effective information sharing across departments</td>
<td>1.32 20.85 4.64 39.74 33.45 3.80 1.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology utilization in the procurement process enables users to generate accurate reports in a timely manner</td>
<td>7.95 13.25 9.93 10.6 58.28 3.98 1.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.2 Correlations Analysis

In this section, correlation analysis was done to determine the strength and direction of association between technology utilization and organizational performance among the employees of KESRA. The findings in Table 4.15 show that there was a statistical and significant strong relationship between technology utilization and organizational performance, \( (r (70) = 0.6809, p<.01) \).
Table 4. 15: Correlation between Technology Utilization and Organizational Performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Organizational Performance</th>
<th>Technology utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2- tailed) n=70</td>
<td>1.000</td>
</tr>
<tr>
<td>Technology Utilization</td>
<td>Pearson Correlation</td>
<td>0.6809</td>
</tr>
<tr>
<td></td>
<td>Sig. (2- tailed) n=70</td>
<td>(0.000)</td>
</tr>
</tbody>
</table>

4.4.3 Assumptions for Linear Regression Analysis

Tests for Normality, Linearity, Heteroscedasticity and Multicollinearity were done to ascertain the assumption of linear regression analysis.

4.4.3.1 Test for Normality

The Shapiro Wilk test for normality was conducted to test whether the supplier management was normally distributed. The null hypothesis was that the data did not come from a population that was not normally distributed. Therefore the alternate hypothesis is that the data originated from a normally distributed population. The test statistic is as shown in the Table 4.16.

Table 4. 16: Normality Test for Technology Utilization

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>statistic</td>
<td>df</td>
</tr>
<tr>
<td>Technology Utilization</td>
<td>.114</td>
<td>67</td>
</tr>
</tbody>
</table>
| a.Lilliefors Significance Correction

The result shows that the p-values for the technology utilization is less than 0.05. Therefore we reject the null hypothesis that the data was normally distributed at 5% level of significance.

4.4.3.2 Test for Linearity

The study used deviation from linearity test to ascertain the assumption of linearity and the findings are in Table 4.17. The findings show that indicate that there is a linear relationship between technology utilization and organizational performance .

46
Table 4.17: Linearity Test for Technology Utilization and Organizational performance

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Performance * Between Groups (Combined)</td>
<td>10.925</td>
<td>18</td>
<td>.607</td>
<td>2.147</td>
<td>.018</td>
</tr>
<tr>
<td>Technology Utilization Linearity</td>
<td>4.679</td>
<td>1</td>
<td>4.679</td>
<td>16.553</td>
<td>.000</td>
</tr>
<tr>
<td>Deviation from Linearity</td>
<td>6.246</td>
<td>17</td>
<td>.367</td>
<td>1.300</td>
<td>.233</td>
</tr>
<tr>
<td>Within Groups</td>
<td>13.569</td>
<td>48</td>
<td>.283</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.494</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.3.3 Test for Heteroscedasticity

The study conducted test for heteroscedasticity to determine if there was a problem of lack of constant variance in the data. The study adopted residual plot using standardized residual against standardized predicted values. If there is systematic pattern then we can conclude that the model suffers from heteroscedasticity. The findings are as indicted in Figure 4.5. The results show that the model does not suffer from heteroscedasticity and thus homoscedasticity because there is no systematic pattern observed.

Figure 4.5: Residual Plot for Heteroscedasticity test for Technology Utilization and Organizational Performance
4.4.3.4 Test for Multicollinearity

To test whether the level of multicollinearity in the estimated models would be tolerated, Variance Inflation Factor (VIF) was used. The finding is stated in table 4.18. The results show that the VIF for the proposed model is within the acceptable ranges of 1 to 10. This shows that the technology utilization did not exhibit multicollinearity and regression analysis could then be carried out.

Table 4. 18: Multicollinearity Test for Technology Utilization and Organizational Performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Capacity</td>
<td>2.42</td>
<td>0.4132</td>
</tr>
<tr>
<td>Total</td>
<td>2.42</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Organizational Performance

4.4.4 Linear Regression Analysis

Linear regression analysis was conducted to establish the effect of technology utilization on organizational performance in public organizations. This section presents the findings of linear regression analysis in terms of model summary, regression analysis of variance (ANOVA) and the coefficient table.

4.4.4.1 Model Summary

Table 4.19 presents the model summary for the regression analysis of technology utilization and organizational performance. The findings of the model summary indicate that technology utilization variable explained about 19.1% of the variability in the organizational performance ($R^2 = .191$).

Table 4. 19: Model Summary for Linear Relationship between Technology Utilization and Organizational Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std.Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.437a</td>
<td>.191</td>
<td>.179</td>
<td>.55213</td>
</tr>
</tbody>
</table>

a.Predictors: (Constant),Technology Utilization
4.4.4.2 Regression Analysis of Variance

The linear regression F statistics shown in Table 4.20 indicates that there was a statistical and significant linear relationship between technology utilization and organizational performance ($F(1, 65) = 15.350, p < .05$).

Table 4.20: ANOVA for Linear Relationship between Technology Utilization and Organizational Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4.679</td>
<td>1</td>
<td>4.679</td>
<td>15.350</td>
<td>.000^b</td>
</tr>
<tr>
<td>Residual</td>
<td>19.815</td>
<td>65</td>
<td>.305</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.494</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organizational Performance  
b. Predictor : (Constant), Technology Utilization

4.4.4.3 Regression Coefficients

The regression coefficients presented in Table 4.21 indicates that technology utilization can statistically and significantly influence organizational performance of public organizations ($\beta = 0.283, t = 3.918, p < .05$).

Table 4.21: Regression Coefficient for Linear Relationship between technology utilization and organizational performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.390</td>
<td>.240</td>
<td>9.958</td>
<td>.000</td>
</tr>
<tr>
<td>Technology Utilization</td>
<td>.283</td>
<td>.072</td>
<td>.437</td>
<td>3.918</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organizational Performance  
**Significance level of 5 percent.**

The estimated regression equation from Table 4.21 is specified by:

Organizational Performance = 2.390 + 0.283 * Technology Utilization
The model shows that technology utilization variable positively influences the organizational performance, i.e. a unit mean index increase in technology utilization applied increases the organizational performance by a positive mean index value of 0.283.

4.5 Effect of Organizational Capacity on Organizational Performance

The study sought to determine the effect of organizational capacity on organizational performance. The study conducted descriptive and correlation and linear regression analysis.

4.5.1 Descriptive Analysis

This section focuses on the effect of organizational capacity on organizational performance. To achieve this, the respondents were asked to rate their opinions on the statements on organizational capacity according to their level of knowledge on a scale of 1 to 5. Where, 1=Strongly Disagree, 2= Disagree, 3= neither Agree nor Disagree, 4= Agree, 5= Strongly Agree. Data was analyzed using descriptive statistics of mean and standard deviation. Variables with a mean close to 4.0 and above represented agreed and strongly agreed while those with a mean close to 3.0 represented “neutral” and those with a mean of 2.0 and below represented disagreed and strongly disagreed. At the same time, standard deviation was used to indicate the consensus of the respondents. The findings are in Table 4.2 and Table 4.23.

4.3.1.1 Ratings of Organizational Capacity

The findings from Table 4.22 indicated that most of the respondents who participated in this study agreed that their organization had a distinct procurement function/department in place. Also, this variable for the organizational capacity that stood out across all the surveyed employees of KESRA with the closest mean to 5 points out of maximum five points (M=3.88, SD=1.20).
<table>
<thead>
<tr>
<th>Organizational Capacity</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization has a distinct procurement function/department in place</td>
<td>7.95 21.19 8.61 20.53 41.72 3.67 1.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The procurement department is adequately staffed</td>
<td>15.89 21.85 10.6 26.49 25.17 3.23 1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization has a procurement policy in place</td>
<td>20.53 21.85 12.58 25.83 19.21 3.01 1.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procurement is incorporated in the strategic planning process of the organization</td>
<td>14.57 22.52 12.58 25.83 24.5 3.23 1.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organization has a strategic procurement plan in place</td>
<td>16.56 26.49 17.22 25.17 14.57 2.95 1.33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.1.2 Ratings of Effect of Organizational Capacity on Organizational Performance

The findings from Table 4.23 indicated that most of the respondents who participated in this study agreed that the organization’s structure supports the implementation of strategic procurement. This variable for the organizational capacity that stood out across all the surveyed employees of KESRA with the closest mean to 5 points out of maximum five points ($M=3.88$, $SD=1.2$).
### Table 4.23: Effect of Organizational Capacity on Organizational Performance

<table>
<thead>
<tr>
<th>Effect of organizational capacity on organizational performance</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization’s structure supports the implementation of strategic procurement</td>
<td>5.96 11.26 8.60 37.09 37.09</td>
<td>3.88</td>
<td>1.20</td>
</tr>
<tr>
<td>Procurement staffing level are adequate for the realization of strategic procurement in the organisation</td>
<td>9.27 17.88 10.6 29.8 32.45</td>
<td>3.58</td>
<td>1.35</td>
</tr>
<tr>
<td>The procurement policy leads to increased compliance in terms of legal, corporate and regulatory requirements</td>
<td>11.26 23.84 15.23 25.83 23.84</td>
<td>3.27</td>
<td>1.36</td>
</tr>
<tr>
<td>The procurement function has the support of the organization leadership and are empowered with the right tools and skills to fulfil their role</td>
<td>5.96 28.48 15.23 28.48 21.85</td>
<td>3.32</td>
<td>1.26</td>
</tr>
<tr>
<td>The organization’s procurement measurement plan helps in tracking procurement progress</td>
<td>5.95 14.81 10.23 38.48 30.53</td>
<td>3.26</td>
<td>1.28</td>
</tr>
</tbody>
</table>

#### 4.5.2 Correlations Analysis

Correlation between organizational capacity and organizational performance was considered. The findings in Table 4.24 show that there was a statistical and significant strong relationship between organizational capacity and organizational performance, $r (70) = 0.90, p < .01$.
Table 4.24: Correlation between Organizational Capacity and Organizational Performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pearson Correlation</th>
<th>Organizational Performance</th>
<th>Organizational Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational</td>
<td>Sig. (2-tailed)</td>
<td>n=70</td>
<td>1.000</td>
</tr>
<tr>
<td>Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational</td>
<td>Pearson Correlation</td>
<td>Sig. (2-tailed)</td>
<td>0.90 (0.001)</td>
</tr>
<tr>
<td>Capacity</td>
<td></td>
<td>n=70</td>
<td>1.000</td>
</tr>
</tbody>
</table>

4.5.3 Assumptions for Linear Regression Analysis

Tests for Normality, Linearity, Heteroscedasticity and Multicollinearity were done to ascertain the assumption of linear regression analysis.

4.5.3.1 Test for Normality

The Shapiro Wilk test for normality was conducted to test whether the organizational capacity was normally distributed. The null hypothesis was that the data did not come from a population that was not normally distributed. Therefore the alternate hypothesis is that the data originated from a normally distributed population. The test statistic is as shown in the Table 4.25. The result shows that the p-values for the organizational capacity is less than 0.05. Therefore we reject the null hypothesis that the data was normally distributed at 5% level of significance.

Table 4.25: Normality Test for Organizational Capacity

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov\textsuperscript{a}</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>statistic    df  Sig.</td>
<td>Statistic    df  Sig.</td>
</tr>
<tr>
<td>Technology Utilization</td>
<td>.092         70  .200*</td>
<td>.964         70  .040</td>
</tr>
</tbody>
</table>

\textsuperscript{a} This is a lower bound of the true significance

4.5.3.2 Test for Linearity

The study used deviation from linearity test to ascertain the assumption of linearity and the findings are in Table 4.26. The findings show that indicate that there is a linear relationship between organizational capacity and organizational performance.
Table 4.26: Linearity Test for Organizational Capacity and Organizational Performance

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance *</td>
<td>Between Groups</td>
<td>12.601</td>
<td>18</td>
<td>.700</td>
<td>2.818</td>
</tr>
<tr>
<td></td>
<td>(Combined)</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linearity</td>
<td>Within Groups</td>
<td>8.821</td>
<td>1</td>
<td>8.821</td>
<td>35.504</td>
</tr>
<tr>
<td>Deviation from Linearity</td>
<td>Total</td>
<td>25.272</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>3.780</td>
<td>17</td>
<td>.222</td>
<td>.895</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>12.671</td>
<td>51</td>
<td>.248</td>
<td></td>
</tr>
</tbody>
</table>

4.5.3.3 Test for Heteroscedasticity

The study conducted test for heteroscedasticity to determine if there was a problem of lack of constant variance in the data. The study adopted residual plot using standardized residual against standardized predicted values. The results show that the model does not suffer from heteroscedasticity and thus homoscedasticity because there is no systematic pattern observed. The findings are as indicted in figure 4.6.

Figure 4.6: Residual Plot for Heteroscedasticity test for Organizational Capacity and Organizational Performance
4.5.3.4 Test for Multicollinearity

To test whether the level of multicollinearity in the estimated models would be tolerated, Variance Inflation Factor (VIF) was used. See results in table 4.27. The results show that the VIF for the proposed model is within the acceptable ranges of 1 to 10. This shows that the organizational capacity did not exhibit multicollinearity since the VIF value of 1.42 was less than 10 and regression analysis could then be carried out.

Table 4. 27: Multicollinearity Test for Organizational Capacity and Organizational Performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Capacity</td>
<td>1.42</td>
<td>0.7042</td>
</tr>
<tr>
<td>Total</td>
<td>1.42</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: Organizational Performance

4.5.4 Linear Regression Analysis

Linear regression analysis was conducted to establish the effect of organizational capacity on organizational performance in public organizations. This section presents the findings of linear regression analysis in terms of model summary, regression analysis of variance (ANOVA) and the coefficient table.

4.5.4.1 Model Summary

Table 4.28 presents the model summary for the regression analysis of organizational capacity and organizational performance. The findings of the model summary indicate that organizational capacity variable explained about 34.9% of the variability in the organizational performance ($R^2 = .349$).

Table 4. 28: Model Summary for Linear Relationship between Organizational Capacity and Organizational Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std.Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.591a</td>
<td>.349</td>
<td>.339</td>
<td>.49186</td>
</tr>
</tbody>
</table>

a.Predictors: (Constant),Organizational Capacity
4.5.4.2 Regression Analysis of Variance

The linear regression F statistics shown in Table 4.29 indicates that there was a statistical and significant linear relationship between organizational capacity and organizational performance \( (F(1, 68) = 36.462, p<.05) \).

**Table 4.29: ANOVA for Linear Relationship between Organizational Capacity and Organizational Performance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>8.821</td>
<td>1</td>
<td>8.821</td>
<td>36.462</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>16.451</td>
<td>68</td>
<td>.242</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>25.272</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organizational Performance  
b. Predictor: (Constant), Organizational Capacity

4.4.4.3 Regression Coefficients

The regression coefficients presented in Table 4.30 indicates that organizational capacity can statistically and significantly influence organizational performance of public organizations \( (\beta = 0.357, t = 2.874, p<.05) \).

**Table 4.30: Regression Coefficient for Linear Relationship between Organizational Capacity and Organizational Performance**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.105</td>
<td>.207</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Organizational Capacity</td>
<td>.357</td>
<td>.059</td>
<td>.591</td>
<td>6.038</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Organizational Performance  
**Significance level of 5 percent.**

The estimated regression equation from Table 4.30 is specified by:

Organizational Performance = 2.105 + 0.357* Organizational Capacity
The model shows that organizational capacity variable positively influences the organizational performance, i.e. a unit mean index increase in organizational capacity applied increases the organizational performance by a positive mean index value of 0.357.

4.6 Chapter Summary

This chapter included the study response rate demographic information, descriptive sections which show the means and standard deviation for each of the study variables, and the inferential statistics section which presents the correlation and multiple regression analysis results. Both figures and tables have been used to present the study results and findings. The next chapter of the study presents the discussion, conclusions and recommendations.
CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary, as well as comprehensive discussions of the study findings obtained in the previous chapter. It later makes comprehensive policy recommendations based on the discussion of the findings focusing on the relationship between supplier management, technology utilization, organizational capacity and organizational performance in public organizations. Suggestions for further studies are also made that is, areas for further studies.

5.2 Summary

The purpose of this study was to investigate the effect of strategic procurement practices on organizational performance in public organizations, with a focus on KESRA. The study was guided by the following research questions: What is the effect of supplier management on organizational performance in public organizations? How does technology utilization affect the organizational performance in public organizations? What effect does organizational capacity have on organizational performance in public organizations?

The study applied a descriptive correlational research design. Stratified random sampling technique was used to select a sample size of 87 from a population of 110 employees at KESRA. Data was collected using questionnaires. Descriptive statistics was used to describe the various demographic variables. Correlation and Linear regression analyses techniques were used to determine the relationship and effect of supplier management, technology and organization capacity on organizational performance. The study used the Statistical Package for Social Studies (SPSS) version 24 as a data analysis tool. The findings and results were presented using tables and figures.

In terms of the effect of supplier management on organizational performance, descriptive statistics revealed that most of the respondents who participated in this study agreed that their organization had a list of pre-qualified suppliers who are reliable (M=3.88, SD=1.20). Correlation analysis revealed that there was a statistical and significant strong relationship/association between supplier management and organizational performance, r (70) = 0.6477, p<.01. Linear regression analysis showed that 11.1% of the variability in the organizational performance...
performance was explained by supplier management, which statistically and significantly influence organizational performance of public organizations ($R^2 = .111$, $\beta = 0.196$, $t = 2.874$, $p<.05$).

On the effect of technological utilization on organizational performance, the descriptive statistics revealed that most of the employees agreed that technology utilization leads to simplification of processes ($M=3.85$, $SD=1.2$). Correlation analysis results showed that there was a statistically significant strong and positive association /relationship between technology utilization and organizational performance, ($r (70) = 0.6809$, $p<.01$). Linear regression analysis showed that 19.1% of the variability in the organizational performance was explained by technology utilization, which statistically and significantly influence organizational performance of public organizations ($R^2 = .19$, $\beta = 0.283$, $t = 3.918$, $p<.05$).

On the effect of organizational capacity on organizational performance, the descriptive statistics revealed that most of the employees agreed that their organization had a distinct procurement function/department in place ($M=3.88$, $SD=1.20$). Correlation analysis results showed that there was a statistically significant strong and positive association /relationship between organizational capacity and organizational performance, ($r (70) = 0.90$, $p<.01$). Linear regression analysis showed that 34.9% of the variability in the organizational performance was explained by organizational capacity, which statistically and significantly influence organizational performance of public organizations ($R^2 = .349$, $\beta = 0.357$, $t = 6.038$, $p<.05$).

5.3 Discussions

5.3.1 Supplier Management and Organizational Performance

The study revealed that the organization had a list of pre-qualified suppliers who are reliable and the caliber of suppliers engaged by the organization enable employees to achieve their objectives. The results agree with Krop & Iravo (2016) who concluded that supplier selection is one of the initiatives under supplier management that should be incorporated by organizations. This is agreement with Manyega & Okibo (2015) who reported successful supplier selection as the most important SM and encouraged its practice in organizations interacting with suppliers as it is a source for competitive advantage. A well-managed and structured approach to supplier selection ensures that the suppliers
selected have the skills and knowledge to do the job and that they are developed to their full potential.

The reason behind this finding could be based on the current trends support the practice of organizations maintaining a prequalified list of well vetted suppliers who are reliable in term of performance and delivery as a way to increase operation efficiency (Epstein, 2018).

The study revealed that there was a statistically significant strong and positive association /relationship between technology utilization and organizational performance. This in agreement with Leiyan, (2016) who noted that there exists a strong relationship between supplier management practices which range from supplier selection to supplier appraisal and organizational performance. In both cases the studies were focusing on public organizations based in the same geographical region.

The study revealed supplier management statistically and significantly affected organizational performance of public organizations. This is in agreement with Chirchir & Gachunga (2015) who indicate that supplier selection significantly affected the performance of public organisations as it has an impact on cost, time and quality of delivered good or service. This finding is in line with the study conducted in China by Dawson, Young, Murray & Wilkinson, (2017) who examined the drivers of supplier-customer relationship profitability. They noted that long-term relationships between trading partners may provide additional advantages such as increase in reliability of supply, improvement in the level of technical interaction, potential product adaptation, and reduction in the level of uncertainties as well as enhancements in the capacity to plan and forecast production and supply schedules. Other studies that support our findings include; Martin (2016) as well as Ngo, Kumar, Kumari, Garza-Reyes & Akkaranggoon, (2016) explored the role of Supply Chain Integration in achieving competitive advantage in UK. Their results confirms our study results where it was revealed that firms with high levels of SCM practices have high levels of organizational performance.

The positive effect of supplier management may be as a result of it positive correlation with time-based and cost-related operational efficiency leading to customer satisfaction and superior business performance. Also, it is important to understand that collaboration with suppliers occurs in the areas of new product development, order delivery and fulfillment (Deloitte, 2015).
5.3.2 Technology Utilization and Organizational Performance

The study revealed that most of the employees agreed that technology utilization leads to simplification of processes. This is in agreement with Deloitte (2015) who indicate that technology is providing access to previously unavailable data or bringing order to massive but unstructured data sets, driving more complex analysis and better supplier strategies; and enabling more efficient operations in a much simpler manner. The results further agree with Gupta & Narian (2014), who point out that the emergence of e-procurement is not only expected to reduce the cost of the purchasing process but also to alter the activities of purchasing, transforming the purchasing process from an operational into a strategic activity. Nolan (2018) in agreement states that the shift towards strategic sourcing, e-procurement bid and vendor management software save the organization time so that it can focus on organization initiatives and supplier relationships.

The findings are as a result of the need for continuous improvement necessitating the need for innovation as people seek better and easier ways of doing things (Johnson, Whittington, Scholes, Angwin, & Regner, 2017).

The study showed that there was a statistically significant strong and positive association between technology utilization and organizational performance. This is agreement with Toktas, Balav, Teoman, & Altunbey (2014) who state that in the adoption of technology in the form of e-procurement systems, the potential benefits of e-procurement systems have stronger impacts than the costs that the company may put up with thus it would be beneficial for the company in the long run as it a relationship with the overall organizational performance. The benefits of technology utilization outweighs any negative impacts.

The study revealed that technology utilization statistically and significantly affected organizational performance of public organizations. This is in agreement with Makabira & Waiganjo (2014) who states that the absence of modern up to date technology leads to inefficiency in an organization ultimatley afftecing the overall organizational performance. This is in agreement with similar arguments and findings for technological organizations, various current studies indicate a positive relationship between technological innovation and organizational performance (Prajogo, 2016; Soto-Acosta, Popa, & Palacios-Marqués, 2016; Davoudi, Fartash, Venera, Asiya, Rashad, Anna, & Zhanna, 2018). The benefits of technology which include time savings, simplification of processes, cost savings in the long
run all positively affect the organizational performance. Therefore, it is evident to conclude that technological opportunities in an industry are associated positively with increased performance of an organization.

The results are based on the fact that globalization has continuously pushed for the need for improved efficiency as organizations operate in a competitive market all seeking competitive advantage where they are better position to achieve their goals and objectives (Wang, 2014).

5.3.3 Organizational Capacity and Organizational Performance

The study revealed that most of the employees agreed that their organization had a distinct procurement function/department in place and that it’s structure supports the implementation of strategic procurement. This is in agreement with Whitmore (2017) who states that the procurement function has evolved from the cleric back office role to a more strategic function whose importance organizations have taken note of. In agreement, CIPS (2015) further states that a distinct procurement function gives weight to the importance of the role and avoids the conflict of interest that could come up should certain activities like supplier selection and supplier payments being done by the same function such as finance. Government laws and regulation has an impact on this finding as its now a legal requirement for public entities to have a distinct procurement function in place (PPRA, 2019).

The study showed that there was a statistically significant strong and positive association between organizational capacity and organizational performance. This is in agreement with KPMG (2015) organizational policies influence the practices of an organizations thus policies that govern the supplier buyer relationship positively affects the activities of employees in the end affecting organization performance. In agreement Pande (2018) states the development and use of documented policies and procedures for the procurement and supply function and ensure their application by colleagues and stakeholders increasing compliance (Pande, 2018).

The study revealed organizational capacity statistically and significantly affected organizational performance of public organizations. The findings are in agreement with and are supported by empirical studies which confirmed by Rehman, Mohamed and Ayoup
who analyzed the correlation between organizational capacity factors and organizational performance measures. Others studies that concur with our findings include Rajapathirana, & Hui, (2018) and Al Ahbabi, Singh, Balasubramanian, & Gaur, (2019) as they revealed a positive and significant effect of organizational capacity on performance.

5.4 Conclusion

5.4.1 Supplier Management and Organizational Performance

The first research question of this study was to determine the effect of supplier management on organizational performance in public organizations. The correlation findings showed positive association between supplier management and organizational performance. The study concludes that the existence of a pre-qualified list of suppliers who are reliable had the greatest effect on operational performance.

5.4.2 Technology Utilization and Organizational Performance

The second research question of this study was to determine the effect of technology utilization on organizational performance in public organizations. A positive and significant association and effects was found between technology utilization and organizational performance. The study concludes that technology utilization leads to simplification of processes. Therefore training of the KESRA employees on the e-procurement process in place contributed to organizational performance.

5.4.3 Organizational Capacity and Organizational Performance

The third research question of the study was to determine the effect of organizational capacity on organizational performance in public organizations. The study concludes that organizational capacity being that the organization had a distinct procurement function/department in place and that it’s structure supports the implementation of strategic procurement contributed to organizational performance.
5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Supplier Management and Organizational Performance

Supplier management has been shown to be an important and critical aspect for the sustainable success of any organization and more recent researchers have also considered it as providing a shared vision that focuses everyone in an organization on product, production and quality improvements that are required both by the market and the need for firms to survive. This recommendation is based on the finding that supplier management has a positive and significant effect on organizational performance. Maintaining good supplier buyer relationships should thus be regarded not as just as procurement but rather as a strategy with the purpose of achieving enduring beneficial buyer–supplier relationships for such organizations as KESRA. The organization need to have a long-term, planned effort to create a capable supplier base and leverage the benefit of supply management. Organizations adopting supplier management evolve to manage a limited number of high-quality suppliers making supply management a key strategic planning process to enhance performance.

5.5.1.2 Technology Utilization and Organizational Performance

In this quickly changing world, technological companies are hardly competing to each other in order to reach a competitive advantage which makes them differentiate of other and obtain a good position or higher performance. The study suggest that there is need for both top managers and other senior managers in firms such as KESRA to invest in research and development (R&D) not only to pursue directly new process and product innovation, but also to increase local as well as imported technology and accomplish the trajectory shifts. The suggestions are based on the finding that technology utilization correlates and relates with organizational performance positively well as significantly. In this regard, public organizations have to embrace technological advancement so as to enhance experiential learning as a strategy for continuing personnel development.

5.5.1.3 Organizational Capacity and Organizational Performance

An organization’s capacity is its potential to perform such that it has the ability to successfully apply its skills and resources to accomplish its goals and satisfy its
stakeholders’ expectations. The aim of capacity development is to improve the potential performance of the organization as reflected in its resources and its management. KESRA in this case need to distinguish between the capacities that it needs to carry out its day-to-day activities (operational capacities) and the capacities needed for the organization to learn and change in response to changing circumstances (adaptive capacities). It’s evident that an organization is strong to the extent that it taps the capacities of its individual members, shares them with others, assimilates them, and institutionalizes them. If KESRA and other public organizations embrace that, then it or they can withstand high rates of staff turnover much more effectively than weaker organizations that fail to internalize and institutionalize their members’ capacities. This suggestion is based on the finding that organizational capacity significantly influences organizational performance.

5.5.2 Recommendations for Further Research

The purpose of the study was to examine the effect of strategic procurement practices on organizational performance in public organizations. The scope of the study was limited to Kenya School of Revenue Administration (KESRA). The study measured the effect of supplier management, technology utilization and organizational capacity as dimensions of strategic procurement. The study recommends for further research by adopting the other different dimensions of strategic procurement available in the literature. As this was a case study, further study is required focusing on other public institutions for generalizability and comparative analysis. Similar studies should also be conducted to focus on private institutions particularly Small and Medium sized organizations an area not much research has focused on.
REFERENCES


CIPS. (2015). Global Standard for Procurement and Supply. CIPS.


KPMG. (2015). Transforming a procurement organization: A financial investment firm’s quest to support growth through procurement excellence. TX.


APPENDICES

APPENDIX I: COVER LETTER

Appendix I: Data Collection Introduction Letter

Flora Wanjiku,
P. O. Box 6722-00200 Nairobi, Kenya
Telephone: +254 723 298 709
Email: florawmacharia@gmail.com
14th July, 2019

To The Dean of Studies,
Kenya School of Revenue Administration (KESRA)
KESRA Centre Westlands, Nairobi, Kenya.

RE: REQUEST TO CONDUCT A STUDY IN YOUR INSTITUTION

Am a masters student undertaking Master of Business Administration – Global Business Management Program at United States International University (USIU-A). As part of my studies, am conducting a study on the topic “Effect of Strategic Procurement Practices on Organizational Performance in Public Organizations: A Case of Kenya School of Revenue Administration”. I would like to request for your permission to administer this questionnaire as part of gathering relevant data for this study.

The researcher is assuring you that your responses will be treated with utmost confidentiality and will be used solely for the academic purpose of this study. It is hoped that by increasing understanding of the effect of strategic procurement practices on organizational performance it will have far reaching implications for the identification and implementation of strategic procurement practices in organizations in Kenya. Your assistance will be highly appreciated.

Yours faithfully,

Flora Wanjiku (656190)

Please Indicate below:

1. I agree to Participate in this study
2. I do not agree to participate in this study.

Signature …………………………………………………………………………………
APPENDIX II: QUESTIONNAIRE

SECTION ONE: General Information
Please fill out this questionnaire by marking [√] in the boxes providing a response that best represent your opinion for each of the statements. All the information provided here will be considered private and confidential for the purpose of this research ONLY.

1. Please indicate your gender
   [ ] Male
   [ ] Female

2. Kindly indicate your age
   [ ] 25 years and below
   [ ] 25 – 34 years
   [ ] 35 – 44 years
   [ ] 45 years and above

3. Please indicate the highest level of education you have ever attained
   [ ] Secondary level
   [ ] College level
   [ ] University level
   [ ] Post graduate level

4. For how long have you been with the enterprise?
   [ ] Less than 1 year
   [ ] 1 – 5 years
   [ ] 6 – 10 years
   [ ] More than 10 years

5. Please Indicate your current Department
   [ ] Finance/Accounts Department
   [ ] Human Resource Department
   [ ] Operations
   [ ] Marketing Department
   [ ] Procurement and Logistics

SECTION TWO: SUPPLIER MANAGEMENT AND ITS EFFECT ON ORGANIZATIONAL PERFORMANCE
This section focuses on the effect of supplier management on organizational performance. This Section has two parts (a) and (b). Part (a) provides five sets of description of supplier management actions. Part (b) provides five sets of descriptions of how these supplier management actions have affected the overall performance of the organization. In a scale
of 1-5, where ( 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree), please tick the box that best represents your opinion on each statement.

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<td></td>
<td>1</td>
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<tr>
<td>2(a)</td>
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</tr>
<tr>
<td>i)</td>
<td>The organization has a list of pre-qualified suppliers who are reliable.</td>
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<tr>
<td>ii)</td>
<td>Suppliers are engaged through capacity buildings and collaborations to improve product design and quality of products</td>
<td></td>
</tr>
<tr>
<td>iii)</td>
<td>Our organization has a process to ensure effective feedback, consultation and/or dialogue with suppliers.</td>
<td></td>
</tr>
<tr>
<td>iv)</td>
<td>Suppliers are trained on the importance of company values and rules of conduct with regard to social, environmental and economic goals</td>
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<tr>
<td>v)</td>
<td>Am incorporated in the decision of a supplier award whose output affects my departments deliverables</td>
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2(b) EFFECT ON ORGANIZATIONAL PERFORMANCE

<table>
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<td>1</td>
</tr>
<tr>
<td>2(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>The caliber of suppliers engaged by the organization enables us to achieve our objectives</td>
<td></td>
</tr>
<tr>
<td>ii)</td>
<td>Supplier capacity building and collaboration leads to performance improvement and competitive advantage</td>
<td></td>
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<tr>
<td>iii)</td>
<td>The continuous supplier relationship management facilitates supplier feedback on performance increases and improves their overall output and reduces risks of poor performance</td>
<td></td>
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<tr>
<td>iv)</td>
<td>Continuous supplier training and engagements lead to increased compliance compliance in terms of legal, contractual, corporate and regulatory requirements</td>
<td></td>
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<tr>
<td>v)</td>
<td>Department users involvement in the supplier selection process leads to dealing with the right suppliers</td>
<td></td>
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SECTION THREE: TECHNOLOGY UTILIZATION AND ITS EFFECT ON ORGANIZATIONAL PERFORMANCE

This section focuses on the effect of technology utilization in procurement practices on organizational performance. This Section has two parts (a) and (b). Part (a) provides five sets of description of technology utilization actions. Part (b) provides five sets of descriptions of how these technology utilization actions have affected the overall performance of the organization. In a scale of 1-5, where ( 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree), please tick the box that best represents your opinion on each statement.

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### TECHNOLOGY UTILIZATION

<table>
<thead>
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<tbody>
<tr>
<td>3(a)</td>
<td></td>
<td>1</td>
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<tr>
<td>i)</td>
<td>The organization has in place an appropriate form of E-procurement process to automate the procurement process</td>
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<tr>
<td>ii)</td>
<td>Technology utilization in the procurement process increases efficiency of the organization as a whole</td>
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<tr>
<td>iii)</td>
<td>Technology utilization leads to simplification of processes</td>
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</tr>
<tr>
<td>iv)</td>
<td>E-procurement system is well integrated with other systems in operation</td>
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<tr>
<td>v)</td>
<td>Technology utilization in the procurement process is vital in data management</td>
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### EFFECT ON ORGANIZATIONAL PERFORMANCE

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<tr>
<th>No</th>
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<tbody>
<tr>
<td>3(b)</td>
<td></td>
</tr>
<tr>
<td>i)</td>
<td>The employees are trained in the use of the e-procurement process.</td>
</tr>
<tr>
<td>ii)</td>
<td>Use of e-procurement reduces ordering costs e.g. stationery costs, secretarial expenses, follow up costs</td>
</tr>
<tr>
<td>iii)</td>
<td>The period from requisition (ordering) to issuing (order fulfillment) is reduced when e-procurement application is used</td>
</tr>
<tr>
<td>iv)</td>
<td>Online procurement facilitates effective information sharing across departments</td>
</tr>
<tr>
<td>v)</td>
<td>Technology utilization in the procurement process enables users to generate accurate reports in a timely manner</td>
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</table>

### SECTION FOUR: ORGANIZATIONAL CAPACITY AND ITS EFFECT ON ORGANIZATIONAL PERFORMANCE

This section focuses on the effect of organizational capacity on organizational performance. This Section has two parts (a) and (b). Part (a) provides five sets of description of organizational capacity actions. Part (b) provides five sets of descriptions of how these organizational capacity actions have affected the overall performance of the organization. In a scale of 1-5, where (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree), please tick the box that best represents your opinion on each statement.
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<td>1 2 3 4 5</td>
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<tr>
<td>4(a)</td>
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</tr>
<tr>
<td>i)</td>
<td>The organization has a distinct procurement function/department in place</td>
<td></td>
</tr>
<tr>
<td>ii)</td>
<td>The procurement department is adequately staffed</td>
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<tr>
<td>iii)</td>
<td>The organization has a procurement policy in place</td>
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<tr>
<td>iv)</td>
<td>Procurement is incorporated in the strategic planning process of the organization</td>
<td></td>
</tr>
<tr>
<td>v)</td>
<td>The organization has a strategic procurement plan in place</td>
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</table>

| 4(b) | EFFECT ON ORGANIZATIONAL PERFORMANCE |                     |
| i)  | The organization’s structure supports the implementation of strategic procurement |                     |
| ii) | Procurement staffing level are adequate for the realization of strategic procurement in the organisation |                     |
| iii) | The procurement policy leads to increased compliance in terms of legal, corporate and regulatory requirements |                     |
| iv)  | The procurement function has the support of the organization leadership and are empowered with the right tools and skills to fulfil their role |                     |
| v)  | The organization’s procurement measurement plan help in tracking procurement progress |                     |

Thank you for your time and honest feedback
APPENDIX III: NACOSTI RESEARCH PERMIT
THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research License is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

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2. The License may not be transferred or assigned.
3. The Licensee shall inform the relevant County Governor and County Commissioner before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The Licensee does not give authority to transfer research materials.
6. NACOSTI may terminate and withdraw the licensed research project.
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