



FACTORS INFLUENCING ADHERENCE TO PUBLIC PROCUREMENT
PRACTICES AMONG CITY COUNCILS IN MALAWI

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Approval of the Thesis

FACTORS INFLUENCING ADHERENCE TO PUBLIC PROCUREMENT PRACTICES AMONG CITY COUNCILS IN MALAWI

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Abstract

FACTORS INFLUENCING ADHERENCE TO PUBLIC PROCUREMENT PRACTICES
AMONG CITY COUNCILS IN MALAWI

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The government of Malawi adopted public procurement practices to promote fiscal discipline and prudence when using public funds. The present study set out to determine if there is observance of public procurement practices and to examine factors that influence adherence to the public procurement practices at city councils in Malawi. Specifically, the study sought to: examine the effects of procurement policies on effective implementation of public procurement practices in city councils in Malawi; determine how management of inventory at city councils impacts on effective public procurement practice implementation in Malawi; investigate the levels of training acquired by the stakeholders within the local councils and their impact on implementation of public procurement practices in Malawi; and, assess the level of system automation infrastructure at the city councils and its impact on enhancing public procurement practice in Malawi. The study adopted a mixed method approach. Quantitative data was analysed using descriptive and regression analyses while qualitative data was analysed using thematic and content analysis. The population size for the study was 49 respondents and data were collected using structured questionnaires and face to face interviews. The study revealed that it was only procurement policies that the city councils made some commendable efforts to adhere to. It was established that there was very poor on adoption of inventory management practices in procurement, staff development through formal training and in-service training and adoption of procurement technologies in their procurement system. To this effect, therefore, the study recommends that city council management should consider making deliberate efforts to influence mind set change among procurement officers through in-service training sessions. Secondly, the

study recommends that management at the city councils should invest in upgrading procurement systems that will enhance the performance of the procurement sector.

Key words: Public procurement, Adherence, City councils

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted in whole or in part in any previous application for a degree. Except where states otherwise by reference or acknowledgement, the work presented is entirely my own.

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Dedication

I dedicate this paper to my wife, children, parents, sibling and friends for their unwavering support throughout the course of my studies, May God bless you all.

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CHAPTER 1: INTRODUCTION

Introduction

This research study was carried out to examine factors that influence Malawian city councils' adherence to public procurement practices. The study focused on all the four city councils in Malawi. City councils were chosen because they are in big cities where a lot of procurements relating to various developments take place. Considering that the Malawian government continues to lose enormous sums of funds in the procurement processes, the problem would have been managed if crucial information regarding public procurement practices were known throughout the country's city councils, which are part of local government. Government purchasing system is a very important element that should be given proper attention as it is often used to advance social objectives by providing essential services to the public. Therefore, public procurement is the pillar in the business world which cannot be allowed to diminish in its credibility. Every year, the government funds the process of procurement in Malawi since it is the major player in the area.

This chapter clearly details the initial background context of procurement in general and background information for city councils in Malawi. It further looks at the problem definition, research objectives and the related research questions, and why the author feels that the research is of any importance to the government of Malawi, the policy makers and including the academia

Background of the study

It has been widely noted, and scholars generally agree, that during the past few decades, public sector spending has significantly contributed a huge amount of government expenditures in literally every country in the world. For example, the public expenditure which translates into public procurement in the United Kingdom, add up to over 200 million pounds (Booth, 2015). China has seen a significant increase in the scale on public expenditures over the past decades. Precisely, the scale of public procurement in China has moved from about 292 billion in 2005 to over 842 billion (Local government, 2015). This development prompted most developed countries to institute a local government system in order to facilitate public expenditure. This initiative has widely been adopted predominantly because government is thought to be a monopolist customer which can influence the private sector behaviour by utilizing its purchasing power within a country

(Charles, 2008). Therefore, public procurement in most developed countries is indisputably regarded as one of the most significant levels that facilitate broader government objectives. Public procurement is deemed to contribute to countries' social and economic developments through stimulation of supply markets using public funds. In light of this development, controls and management practices of public expenditure have been institutionalised and legislated in order to promote effective and accountable use of public funds. This has further been instituted to ensure that there is efficient and effective use of Government funds, a situation which has been proven to have resulted in multiplier effect on a myriad of developmental initiatives in the numerous countries where the said approaches have been adopted and implemented.

Development of vibrant public procurement laws has been perceived to have brought in positive policies which have resulted in the enhanced running of government operations in developed and developing countries. However, the benefits of effectively well-functioning procurement policies in public institutions are more pronounced in less developed countries as compared to well-developed countries in the sense that in less developed countries, Procurement typically occupies a significant component of total spending. This is substantiated with the cases of Malawi and Uganda where the proportions of total expenditure that is allocated to procurement are 40% and 70% in that order (Development Assistance Committee, 2005). This is much higher than what the case is like in a great many developed countries who utilises not less than 10% of their Global Domestic Product (GDP) on public procurement (Trionfetti, 2003).

It is arguably imperative, therefore, that developing countries should consider enacting public procurement policies to ensure financial prudence, among other factors and benefits widely discussed in literature. The goal of nations overhauling their public management systems including that of procurement is aimed at creating procurement systems that are transparency, thereby managing cost and increasing competition (Bovis 2010; Elliott 2007). In response to the initiatives and calls made by the donor communities and international organizations such as the World Bank and International Monetary fund (IMF) on improvements towards public finance management, there has been an increase on public management reforms in both developing and developed countries and the same has resulted in the prudent management of resources worldwide (Evenett & Hoekman 2003).

In Sub-Saharan countries, effective implementation of purchasing and buying practices has faced quite several problems and challenges with countries failing to ensure effective implementation of the public procurement at sectorial level (Njeru, 2014). This is despite the call for Public Procurement regulation within the continent in order to ensure effective accountability and efficient procurement practices on public funds in order to promote economic development. The continent has been experiencing differentials practices with regards to public procurement systems resulting in lost opportunities through fraud and corruption thereby failing to achieve value for money, protection, enhancement, and efficient use of resources, and lower – life cost among the suppliers (Talluri, 2008), a situation which affect seamless operation and integration of the socio-economic value networks (Zuzana, 2012).

In Malawi, in a quest to adhere to effective public financial management, the government of Malawi since 1981 enacted different structural reforms in order to promote effective use of public funds (Andrew, 2010; UNEP, 2009). Among the structural reforms resulted in the country's legislating the Public Procurement ACT in 2003 with the aim of ensuring accountability and better practices in public procurement practices (Government of Malawi, 2003). Yet, the country's civil services still experience a lot of challenges which result in corrupt practices and increased cases emanating from public procurement, a decade after 2003 enactment of Public Procurement ACT. Studies in public finance reforms in the country, have emphasised on structural reforms, public sector reform in general without a relation in public procurement reforms more especially at the local government level which control much of the government expenditure budget (Andrew, 2010; Ayugi, 2010; Durevall, 2003; Government of Malawi, 2003). Therefore, little is known as to how public procurement is adhered to more especially at local government perspectives. As such, the exploration of the factors affecting adherence of public procurement practice implementation at local government level in Malawi cannot be overstated. This is to provide an impetus for government and development partners to learn more and foster efforts aimed at promoting public expenditure and assist the government in poverty reduction and socio-economic developments.

Public institutions as well as state-owned enterprises need to procure goods, services and works to carry out their responsibilities and duties. The total volume of public procurement systems towards acquisition of goods, works and services accounted for the 12% of the GDP and 29% of the overall public government expenses in organizations for economic cooperation and

development countries (OECD) amounting to EUR 4.2 trillion in 2013. The share of public procurement at the subnational level represents 63% of the general government procurement in OECD countries (OECD, 2016). One of the areas of government where corruption is most likely to occur is public procurement. Corruption risks are compounded by the complexity of the process, the close engagement between public officials and enterprises, and the wide range of players in addition to the significant number of transactions and the financial interests at risk (OECD, 2016).

Using public policy, the law, and regulation, public procurement reform is the systematic restructuring and remodelling of the institutional and administrative processes for procuring works, goods, and services for the public sector. Reform means that what was previously in place did not satisfy the nation's philosophy and procurement goals. Reforms are therefore intended to examine current wrongdoings and weaknesses in the systems in the context of evolving conditions and produce adjustments that are responsive to the new problems. Reforming public procurement entails replacing the current system with the one that is newer and more effective. The primary focus is on organisational, institutional, and legal frameworks, with an emphasis on transitioning from traditional to more efficient, effective, modernised, and simplified procurement processes, organisations, institutions, and legal structures (Basheka, 2009). Reforms entail altering the fundamental characteristics of the systems to make them responsive to contemporary requirements and philosophies. Reforms involve changing opaque systems to make room for transparent ones, transforming dishonest ones to make them more honest, establishing clear accountability principles where there was previously no way to identify who was responsible for procurement actions, making honesty the norm where there had been corruption, and making mistakes and weaknesses the exception rather than the rule. Public procurement reform is a process rather than a single action, which implies ongoing evaluation and revision.

These weaknesses may be used as a springboard for a variety of dishonest activities, including embezzlement, improper influence during the needs assessment, bribery of elected officials involved in the selection process, and fraud in the evaluation of bids, invoicing, or contractual responsibilities. In many OECD countries, significant corruption risks arise from conflict of interest in decision-making, which may distort the allocation of resources through public procurement (European Commission, 2014a). Moreover, bid-rigging and cartelism may

further undermine the procurement process. The OECD Foreign Bribery Report (2014) provides additional evidence that public procurement is susceptible to corruption (OECD, 2014).

The direct costs of corruption include loss of public funds through misallocations or higher expenses and lower quality of goods, services and works (OECD, 2015a). Those paying the bribes seek to recover their money by inflating prices, billing for work not performed, failing to meet contract standards, reducing quality of work or using inferior materials, in case of public procurement of works. This results in exaggerated costs and a decrease in quality. A study by the OECD and the World Bank shows that corruption in the infrastructure and extractives sectors lead to misallocation of public funds and substandard and insufficient services (OECD, 2015a).

The public procurement system in Malawi is regulated by the Public Procurement and Disposal of Assets Act (2017) and other secondary legislation including the Public Procurement Regulations and standard bidding documents. Prior to 2003, Malawi had a centralized procurement system characterized by the presence of the Central Tender Board (CTB) that was responsible for all procurement above a prescribed threshold for Government Ministries and Departments. The Central Government Stores (CGS) used to procure for Government Ministries and did its own procurement without much control from the Government.

This was one of the gaps that led to the enactment of the Public Procurement Act (PPA) of 2003, which decentralized procurement responsibility to procuring entities and established the Office of the Director of Public Procurement (ODPP) as a public office with the responsibility of regulation, monitoring and oversight of public procurement in Malawi. However, lack of limited enforcement mechanisms led to the enactment of the Public Procurement and Disposal of Assets Act (2017) which established the Public Procurement and Disposal of Assets Authority (PPDA) as an impartial and independent institution responsible for the regulation, monitoring, oversight and enforcement of public procurement and disposal of assets in Malawi. The PPDA is now a government department with fully-fledged Authority. The PPDA operates independently. The PPDA is equipped with relatively wide authority, which includes investigation and sanctioning of procuring entities, and granting permission to use the direct procurement procedure. The fact that the PPDA enjoys high degree of independence and is equipped with wide authority is in line with best international standards of having an independent public procurement authority that has enough resources and legal authority to impartially monitor the system and make sure the PPL is

being followed in practice. In this way, the PPDA has good potential that needs to be further harnessed by establishing clearer legal functions, ensuring that there is no duplication of authority, and equipping the Authority with more resources to carry out its responsibilities.

A great many governments across the world have made significant attempts at carrying out public procurement reforms to deal with the visible inadequacies in the public procurement systems left by their respective former colonial masters. Tambulasi (2009) while analysing the impact of new public management on corruption at the Malawian local government level, found that contracting out in District Assemblies presents motivations, opportunities, and possibilities for corruption. He noted that in many cases the decision to enter into contracts was based not on an existing service need but rather on the desire to assist certain Assembly officials in need. In these cases, 'contracts are given out to alleviate the official's poverty' rather than to address the need of the Assembly. It was observed that when office bearers were in financial difficulties, they were awarded contracts to provide some services that were not even needed at the Assembly. Moreover, such contracts are mostly awarded without going through the normal tendering processes. In other instances, Tambulasi, (2009) noted that office bearers, take a very proactive role in awarding themselves contracts. In addition, nepotism and favouritism were allowed to guide the whole process of contracting out. Normally, contracts are awarded to relatives and friends. In some instances, the officials have their own contracting agencies registered in their relatives' or friends' names. It was noted that at one site even messengers have contracting agencies. It was discovered that such agencies dominate almost all of the contracts at the Assembly, thereby ensuring that the Assembly officials award themselves the contracts. The bidding process becomes a mere formality because the winners of the tenders are often predetermined. Tambulasi, (2009) learnt that the managers prepare and write winning tenders for prospective contractors that they in turn assess themselves. The prospective contracting companies connive with Assembly officials to write these winning tenders. It was observed that this happens especially when outside evaluators come. When contracts are approved, the contractors give 'commissions' to the officials concerned. Tambulasi (2009) also observed that the Assembly officials use contractors to advance personal gain. Contracting officials have a great deal of discretion. This allows them to contract out companies under the Assembly's account to carry out private or personal activities. At one site, the sheriff executed a High Court order that the Assembly should surrender its properties for

default of payment for cell phones that officials had contracted with Celtel Malawi Limited, but they had committed the Assembly as a subscriber for their personal handsets.

Public procurement is a critical aspect of any country's economic development. More importantly, adherence to public procurement practices is crucial for ensuring accountability and improvements in the management of government expenditures. In Malawi, city councils contribute a crucial role in public procurement processes, therefore their adherence to public procurement practices is vital for the country's economic growth. However, there have been concerns regarding the level of adherence to public procurement practices among city councils in Malawi, which may have negative implications for the country's economic development.

This study investigated the factors influencing adherence to public procurement practices among city councils in Malawi. Specifically, the study sought to identify the factors that influence adherence to public procurement practices among city councils in Malawi, assess the level of adherence to public procurement practices among city councils in Malawi, and determine the impact of adherence to public procurement practices on the economic development of Malawi.

The study used a mixed-methods research approach, where both qualitative and quantitative data were collected. Data were collected through interviews, questionnaires, and document analysis. The study targeted city council officials responsible for public procurement processes.

The findings of this study are expected to contribute to the body of knowledge on public procurement practices in Malawi and provide insights into the factors influencing adherence to public procurement practices among city councils. The study's findings may be used by policymakers and stakeholders to improve public procurement practices in Malawi, ultimately contributing to the country's economic development.

Statement of the Problem

Considering the empirical evidence that lack of adherence of procurement best practices in public procurement systems has adverse implications on part of both the public and private sectors (Osei-Tutu, Badu, & Owusu-Manu, 2010), it is expected that the city councils will always adhere to public procurement laws

However, despite the procurement law being progressive in nature, organisational non-compliance to the procurement best practices still exists in large quantities in about 70 percent of

most organisations worldwide as established by various audit reports (Mugambi, 2014). Nonetheless research on the effects of firm performance of best practices of environmental management which are supposed to enable firms to simultaneously protect the environment and reduce costs has so far ignored the roles of existing firm resources (Christman, 2000). Eventually Mahuwi and Panga (2014) alluded that monitoring procurement activities, staff training and procurement planning are essential for public institutions. In Zambia, Chifuti (2020) found that the two factors that showed significant effect on procurement best practices are Information and communication technology.

Subsequently the government of Malawi continues to lose a lot of public funds through inappropriate standards in the process of procurement of goods and services aimed at promoting the well-being of the people (Ellis, Kutengule & Nyasulu, 2003). This development continues to worsen each year despite the government ratification of the law that enforces prudence concept in the process, practice and procedure aimed at public goods and services acquisition. This is caused by inadequate procedures that the government implements to monitor all sectors of public procurement and consequently increased poverty levels among the people in major cities of the country. In the same vein in Kenya, Ogubala, Mburu and Kiarie (2014) argue that, planning for procurement is impacted by insufficient employee qualifications and organizational resources coupled with management laxity. Besides Mutoro, Makokha and Mamusonge (2018) determined that service delivery affects supply chain planning. In Ghana, Asante (2016) determined that the most important issues affecting procurement performance are lack of knowledge, political influence, inadequate institutional structures, and failure to implement; monitor rules and laws in 80 percent of Ghana's public sectors.

This is despite the continued support in the form of the subvention that the government allocates monthly to city councils in a quest to improve the socio-economic status of the rural and underserved communities. Poor adherence to procurement best practices results in inefficient public financial management system which retards national development, this has a problem as it leads to poor expenditure and debt management, corruption., non-transparent and discriminatory procurement procedures, ineffective debt management, low productivity and inefficient and loss of money hence leading to poor public service delivery.

The increased growing population in Malawi has resulted in the need for the country to provide for public service delivery to sustain its inhabitants, businesses and many sectors such as health, education, infrastructure and many more. The need to provide such services has seen resources being abused leading to poor service delivery such as poor roads infrastructure, poor service delivery in schools and hospitals and hygiene problems in towns due to flaws in procurement processes of service provider. It is against this background that this research assessed the factors influencing adherence of public procurement practices implementation.

Purpose of the study, Research Aims and objectives

The purpose of this mixed methods study was to provide insight to policy makers and the Malawian government in general, on the influence that institutional factors play on the adherence of public procurement practices in the government sector particularly in the city councils of the country. The information from this study will help to improve implementation of the public procurement practices in the city councils. In this study the qualitative and quantitative analysis play a complimentary role to the influence of institutional factors on the implementation of public procurement practices in city councils. Furthermore, the study aimed at examining the factors that influence adherence to public procurement practices in city councils in Malawi. Following this aim, the study used the following specific objects to achieve its purpose;

- i. To examine the effect of procurement policies on effective implementation of public procurement practices at city councils in Malawi
- ii. To determine how management of inventory at city councils impacts on effective public procurement practice implementation in Malawi.
- iii. To investigate the levels of training acquired by the stakeholders within the local councils and their impact on implementation of public procurement practices in Malawi.
- iv. To assess the level of system automation infrastructure at the city councils and their impact on enhancing public procurement practice in Malawi.

Nature and Significance of the study

This study adopted the explanatory sequential mixed method study design to investigate factors that influence procurement personnel's adherence to public procurement practices for effective utilisation of public resources in city councils of Malawi and more on the nature and design of the study has been discussed in the methodology section.

On the same note, as the government of Malawi is continuing losing a lot of revenue through procurement channels, that situation would have been controlled if important information with regards to public procurement practices were known across the city councils in the country. For instance, there is no literature highlighting factors influencing adherence of the public procurement practices implementation among procurement personnel in city councils in Malawi. It is therefore worth noting that the findings of this study are to assist in providing more information with regard the public procurement implementation practices adherence among the stakeholders. This is to be significant as issues affecting adherence are to be identified and solutions suggested that will assist Malawi government in its quest for public financial management reform policy, more importantly from the city council level. Secondly, findings of the study will assist in redirecting policies related to public procurement practices at city councils in addition of informing the central government on how the public procurement is being practiced at the councils and there by supports the national structural adjustment public funds programmes.

Lastly, the study is to contribute to the body of knowledge in that findings and approach of this study is to provide insights to other significant dimensions for further research in either city councils or the central government. The significance of the study is further substantiated by the fact that the features of the public procurement system prior to the inception of the reform programmes in a good number of developing African countries that were at one time British colonies or protectorates indicate a whole lot of anomalous tendencies that have had a negative impact on the performance of the procurement systems. As illustrated by the case of Uganda, Procurement was centralised in the country, and contracts worth more than \$1,000 were awarded by a Central Tender Board in the Ministry of Finance, in accordance with legislation passed in 1977. The Police and Military had separate tender boards. The Government Central Purchasing Corporation handled the procurement of several commodities on behalf of ministries. The Corporation was established by statute in 1990 to replace the civil service's central buying

organisation. The advantages of unified purchasing and central control were provided by these arrangements, but the Central Tender Board was unable to keep up with the growth of government activities and the corresponding procurement needs. As a result, there was a backlog of bids, and the procurement procedure dragged on. International and foreign aid organisations, which account for nearly half of all development expenditure in Uganda, considered public procurement to be a key obstacle to effective service delivery and development. This therefore supports the salience of conducting a study in the context of Malawi to help the government identify solutions to challenges facing the public procurement system to avert the occurrence and recurrence of consequences that come with a poor public procurement system as discussed in the other cases from the continent and regions of the continent.

Research Questions

The following are the research questions for the study;

- Q1 How do procurement policies affect effective implementation of public procurement practices in City Councils in Malawi?
- Q2 To what extent does management of inventory at City Councils impact on effective implementation of public procurement practice at City Councils in Malawi?
- Q3 How does level of training acquired by the stakeholders involved in procurement processes at city councils have any impact on implementation of public procurement practices at city councils in Malawi?
- Q4 To what extent does automation of infrastructure in the procurement system have an impact on enhancing public procurement practice at city councils in Malawi?

Summary

This chapter has provided an overview of the background context of procurement in general, background information for city councils in Malawi, the problem statement of the study, study objectives, study research questions, purpose of the study and lastly the nature and significance of the study. The background of the problem in this study as outlined by in this chapter is that public expenditure takes a huge share of government spending around the world. Let alone, it has been noted that public procurement is indisputably regarded to be on one of the most significant levels that facilitate broader government objectives. In the light of this development,

controls and management practices of public expenditure have been institutionalised and legislated in order to promote effective and accountable use of public funds in order to promote efficient and prudent use of resources.

It has been further outlined that, the government of Malawi, in a quest to adhere to effective public financial management, their government since 1981 enacted different structural reforms in order to promote effective use of public funds. The introduced structural reforms resulted in the country legislating the Public Procurement ACT in 2003 with the aim of ensuring accountability and better practices in public procurement practices. It has also been noted that, in Malawi, city councils play a crucial role in public procurement processes, and their adherence to public procurement practices is vital for the country's economic growth. However, there have been concerns regarding the level of adherence to public procurement practices among city councils in Malawi, which may have negative implications on the country's economic development which prompted this study to assess factors that are influencing adherence of public procurement practices in the city councils.

Lastly, the purpose of this study was to provide insight to policy makers and the Malawian government in general, on the influence that institutional factors play on the adherence of public procurement practices in the government sector particularly in the city councils of the country. The findings of this study will help to improve implementation of the public supply chain practices at city councils. This research adopted the explanatory sequential mixed method design to investigate factors that influence procurement personnel's' adherence to public procurement practices for effective utilisation of public resources in city councils of Malawi.

CHAPTER 2: LITERATURE REVIEW

Introduction

This chapter presents and analyses literature on procurement as it pertains to the present study. Attention has been paid particularly to observations, arguments and conclusion that are preceded by systematic studies conducted on procurement practices across the globe. Both theoretical literature and empirical studies have been presented, nevertheless. An inverted pyramid approach was adopted to explore literature on public procurement practice implementation, first, around the world regions such as Asia, OECD, Latin America and America, then it was narrowed down to review public procurement practices in Africa at large before examining geographically motivated political blocks on the continent such as West Africa, East Africa and Sub-Saharan Africa. Comparative analyses of the extent to which public institutions and organisations observe and adhere to various dimensions of procurement policies enacted across these blocks was provided followed by a precise account of factors that influence noticeable observations in the way procurement affairs are handled. Finally, the chapter reviewed literature on procurement practices in Malawi. A history of public procurement in the country in terms of establishment of governing bodies and enactment of policies was discussed. Thereafter, the chapter examined similarities and variations between procurement trends and tendencies popular in Malawi and those that are seemingly prevalent elsewhere across the globe. Thereafter, the literature analysed major theoretical submissions that underpin the art and culture of procurement. The theories provided insight into implementation and observance of public procurement policy among its custodians. The analysis clearly demonstrated how the selected theories relate to the present study. A lucid account of how each of the theories selected will be applied in this study was provided. This was followed by a conceptual framework which was drawn to relate different variables; thus, both independent and dependent variables were presented.

In order to undertake this exercise, different online and physical literature was used such as spaces of different scholarly libraries, Jstor, science direct, Google scholar, government documents, parliamentary gazettes, national and university libraries in Malawi, among others. A systematic review of this literature rendered palpable the gaps that exist in literature on the concept of public procurement.

Arlene (2014), in an attempt to define the concept of literature review in the context of academics, takes the perspective of the process involved in the activity. He explains that a literature review surveys books, scholarly articles, and any other sources relevant to a particular issue, area of research, or theory, and by so doing, provides a description, summary, and critical evaluation of these works in relation to the research problem being investigated. Literature reviews are essentially designed by an academic researcher with a view to providing a systematic overview of the relevant sources which a researcher in the study at hand has explored in the process of the research activity on a particular topic. Furthermore, a literature review serves to demonstrate to the readers how your research fits within a larger field of study.

Furthermore, the term literature review has also been defined as a piece of academic writing which sets out to demonstrate knowledge and understanding of the academic literature on a specific topic placed in context. Every piece of literature review will include a critical analysis of concepts and phenomena on a given topic that a researcher in a particular study seeks to explore. It is in this respect that it is called a literature review rather than a literature report. Literature review is both a method of reviewing the literature and a type of writing.

To illustrate the difference between reporting and reviewing, attention has been paid to the case of television or film review articles. A close analysis of these documents will reveal that these articles include content such as a brief synopsis or the key points of the film or programme plus the critic's own evaluation. Similarly, the two main objectives of a literature review are firstly the content covering existing research, theories and evidence, and secondly your own critical evaluation and discussion of this content. Usually, a literature review forms a section or part of a dissertation, research project or long essay. However, it can also be set and assessed as a standalone piece of work.

In a larger piece of written work, such as a dissertation or project, a literature review is usually one of the first tasks carried out after deciding on a topic. Reading combined with critical analysis can help to refine a topic and frame research questions. Conducting a literature review establishes the researcher's familiarity with and understanding of current research in a particular field before carrying out a new investigation. After doing a literature review, you should know what research has already been done and be able to identify what is unknown within your topic.

In some other cases, a literature review may comprise only a recap of abstracts or consist of simply a summary of key sources to examine notable issues observed by researchers on a topic. However, the case is different in the field of social sciences, where it is imperative that a literature review should have an organizational pattern and combines both summary and synthesis, which oftentimes is built within specific conceptual categories. This summary is purposely designed to provide a recap of the important information of the source, but a synthesis is a re-organization, or a reshuffling, of that information in a way that informs how you are planning to investigate a research problem. The analytical features included in the review of a literature is intended to serve a number of functions, and standing out among these include, but are not limited to; provision of a novel analysis and interpretation of the same usual materials that have been explored by preceding studies; combine new with old interpretations; trace the intellectual progression of the field, including major debates, depending on the situation, evaluate the sources and advise the reader on the most pertinent or relevant research or usually in the conclusion of a literature review, identify where gaps exist in how a problem has been researched to date.

Furthermore, the purpose of a literature review is to create a context and schema into which works by preceding studies can be placed, particularly regarding the contributions made by these studies towards the development of the phenomenon under study. This further contributes towards amelioration of the level of understanding on the part of readers of the research problem being studied and help to describe the relationship of each work to the others under consideration, and to identify more relevant and realistic ways to interpret prior research. Additionally, literature review helps to render conspicuous the gaps that exist in the literature which the present study at hand will have the obligation to fill. This will, among other things include resolving conflicts amongst seemingly contradictory previous studies. Finally, the review of literature in any research study will help to identify areas of prior scholarship to prevent duplication of effort and to point the way in fulfilling a need for additional research, locate your own research within the context of existing literature.

Theoretical framework

This chapter discusses prominent theories in procurement to which the present study has been anchored. The theoretical framework seeks to provide a prediction of the relationship between the key variables used in the present study. To ensure a thorough representation of all the

relationships across the phenomena in this study, the researcher has developed a framework of four complementary theories that effectively capture the sought relationships and predict the possible outcomes of the interactions among variables as regards to adherence to procurement best practices in organizations. Particularly, the theoretical analysis will explore factors that influence adoption and implementation of the recommended best practices and then predict what will result from procurement behaviours embraced by the organization in terms of the overall performance of the entire system. The four theories that form the framework for the present study include: Institutional Theory, Principal Agent Theory, Social Learning Theory and Information Infrastructure Theory.

Institutional theory

The ideas and concepts from which the Institutional Theory was built have their origin in works of Meyer and Rowan (1977). However, these ideas and concepts were later own developed further by DiMaggio and Powell (1983), who shaped and refined the notion of mimesis in organisations, which can render itself in simplest terms as the tendencies of organisations to mimic each other. It is believed that Meyer and Rowan (1977) developed the Institutional Theory from the writings of Max Weber on legitimacy and authority, the perspective originated in the 1950s and 1960s with the work of Talcott Parsons, Philip Selznick, and Alvin Gouldner on organization–environment relations, which subsequently underwent a “cognitive turn” in the 1970s, with an emphasis on taken-for-granted habits and assumptions, and became commonly known as “neo-institutionalism” in organizational studies.

The theory regards organisations as entities that have a propensity of incorporating practices and procedures in their systems in accordance with tendencies that are defined by prevailing rationalized concepts of organisational work and institutionalized society. It is believed that organisations that do so influence their legitimacy and their survival prospects independent of the immediate efficacy of the acquired practices and procedures. What results from such tendencies is what DiMaggio and Powell (1983) term isomorphism, which they define as the process of constraint that makes a population unit resemble other populations that experience the same environmental stresses.

Three key constructs of isomorphism have been identified, and these are: coercive isomorphism, mimetic isomorphism and normative isomorphism. While coercive isomorphism

refers to the type of isomorphism that results from political influence and the legitimacy issue, mimetic isomorphism is seen to be the outcome of common responses to ambiguity, and normative isomorphism is linked to professionalisation. DiMaggio and Powell (1983) state that institutional isomorphic change occurs through three mechanisms: Against these three domains they put forward three propositions to explore their applicability to explain sustainable procurement adoption. Coercive isomorphism is the outcome of official and informal constraints placed on organisations by other organisations they depend on as well as by the cultural expectations of the larger society they are a part of and operate in (DiMaggio & Powell, 1983). To illustrate this relationship, Wolf (2013) cites a case of customers, governments and non-government organisations who have the potential to push firms towards sustainability and social responsibility initiatives. Wolf (2013) further observes that coercive pressures may be felt as force, which may occur in form of regulatory imposts, as can be illustrated by product take-back legislation for electronic and electrical equipment (European Union, 2002) or may take the form of invitations to join in collusion, such as public purchasing programs. Organisations will comply with such pressure exerted through rules or laws, whether formal or informal, as a matter of expedience (Wolf, 2013). It is observed that, consequently, environmental issues are being embedded in an organisation's strategy due to the regulatory conditions and accountability (Campbell, 2007). He further proposes that corporations are more likely to act in socially responsible ways the more they encounter strong state regulation, collective industrial self-regulation, NGOs and other independent organisations that monitor them, and a normative institutional environment that encourages socially responsible behaviour.

Callender and Matthews (2003) also recognize supplier relationships to be other strong forms of isomorphic coercion. They maintain that aside from regulation and government programs, coercive isomorphism could also be channelled through supplier relationships, where procuring organisations place contractual requirements on suppliers as part of the contracting process, as standardized conditions. Put succinctly, it is safe to conclude that, to some reasonable extent, adoption of sustainable procurement strategies and best practices can be explained through coercive isomorphism.

Mimetic isomorphism is a phenomenon in which organisations imitate other organisations when faced with ambiguous or poorly understood aims. The organisation being mimicked may not

be aware of it or may not want to be copied, in which case it only provides the borrowing organisation with a convenient source of best practises (DiMaggio & Powell, 1983). What is seen as 'orthodox' is adopted by organisations that are either weaker or less confident in their views in a certain field. Mimetic isomorphism is a structure that can moderate the adoption of sustainable procurement, as might voluntary instruments and supplier codes focused on sustainability. Organisations may be inspired to adopt imitation sustainable purchasing practises by alliances and networks that foster adoption. Again, it can be concluded from this analysis that there are certain empirical cases to illustrate the view that mimetic isomorphism can be applied to explain sustainable procurement adoption.

DiMaggio and Powell (1983) argue that normative pressures are another mechanism through which isomorphic changes in organisations are delivered. These pressures are a result of educational or other institutions establishing professional norms and professional networks reinforcing those norms. For instance, in the context of sustainable procurement, professional organisations and groups as well as educational institutions could promote sustainable procurement through normative pressures. Recent studies on the applicability of the Institutional Theory in the way organizations operate in the present day have since confirmed the picture that the Institutional Theory serves as an ideal tool for examining ways in which organizational structures, norms, practices, and patterns of social relationships are linked to the wider social and cultural environment. The theory, therefore, is a prominent perspective in contemporary organizational research (Anagnostopoulos et al., 2010; Dina et al., 2002)).

Institutional Theory is believed to encompass a large and diverse body of theoretical and empirical work connected by a common emphasis on cultural understandings and shared expectations. It is for this reason that the Institutional Theory is often used to explain the adoption and spread of formal organizational structures, including written policies, standard practices, and new forms of organization. Campbell (2007) observes that, in recent years, work based on the perspective has shifted from a focus on processes involved in producing isomorphism to a focus on institutional change, exemplified by studies of the emergence of new laws and regulations, products, services, and occupations. The expansion of the theoretical framework has contributed to its long-term vitality, though a number of challenges to its development remain, including resolving inconsistencies in the different models of decision-making and action (*homo economicus*

vs. homo sociologicus) that underpin institutional analysis and improving our understanding of the intersection of socio-cultural forces and entrepreneurial agency.

Relevance of Institutional theory

Geels (2010) posits that institutionalization is important for organizational development because it considers the processes of learning and changing institutional models from an evolutionary and deterministic point of view, which influences the movements of change and deals with the level of uncertainty inherent in the innovativeness. In particular, he maintains that institutional theory may help both researchers and managers within the organizational culture to explore how cultures within organizations are worked out in relation to cultures outside organizations, and how organizational cultures are being transformed and translated through time.

There is proof that a number of coercive methods and devices have an impact on the adoption of sustainable purchasing. In addition to legislation, the spread of sustainability is a result of corporate social responsibility policies and frameworks designed to enhance sustainability performance in firms within a sector. Another means of enforcing sustainability is down the supply chain from the procurer to the supplier by imposing sustainability standards as part of the contracting process (Carter & Jennings, 2004; Zu & Sarkis, 2007). They identify three coercive mechanisms, namely, regulation, public procurement policies and programs and supplier assessment programs to illustrate the notion of coercion. A study by Min and Galle (2001) revealed that organisations that take environmental regulatory compliance more seriously were likely to be undertaking green purchasing. A similar study carried out by Zhu and Sarkis (2007) discovered that manufacturers facing higher regulatory pressures tend to better implement green purchasing and investment recovery. Contrary to these findings however, a research study conducted by Carter and Jennings (2004) showed that government regulations are not a significant driver of sustainable procurement (Carter & Jennings 2004). Public procurement policies and programs and Government procurement programs have the potential to be important sources of isomorphism stimulating mimetic behaviour within and potentially across sectors outside government (Erdmenger, 2003). As national governments adopt sustainable procurement programs, they provide impetus for other levels of government and other sectors including corporations to mimic these programs and processes and spread sustainable procurement. Coercive directives such as mandatory government green purchasing policies are frequently modelled by other sectors as a

result of mimetic behaviour (Rao, 2005). It is further argued that supply chain management is the most advanced stage of green management and recommends identifying supplier environmental performance indicators and formally measuring and selecting suppliers (Preuss 2005). Preuss further notes that if supply chain managers were serious about the environmental performance of their company and its products then environmental credentials of suppliers should emerge as one criterion to influence supplier selection. Suppliers are evaluated and accredited through rating systems as part of a sustainable purchasing policy to determine sustainability performance and customized to individual sectors and procurement initiatives (Green & Morton, 2002; Rimmington, Carlton Smith & Hawkins, 2006).

Geels (2010) sums it up well that Institutional Theory provides the basis for the systematic analysis of innovation using theoretical contributions about distinctions between formal and informal institutions and regulative, normative and cultural-cognitive types of institutions, as well as the different levels of institutions. The relevance of the Institutional Theory in the present study has therefore been buttressed by the understanding that there is sufficient empirical evidence which points to the direction that adoption of recommended best practices in the field of procurement can be explained through coercive isomorphism. This study used the theory to explore such issues as observance of procurement policies and regulations when undertaking their activities on part of the institution under study and the extent to which they demonstrate willingness adopt new innovations such as ICTs used in procurement with a view to enhancing the procurement function of the City Council under study.

Principal Agent Theory

The principal–Agent Theory seeks to explain a specific social relationship, that is, delegation, in which two actors are involved in an exchange of resources. The principal is the actor who disposes of a number of resources but “not those of the appropriate kind to realize the interests (for example, has money but not the appropriate skills)” (Braun & Guston, 2003). In this case he or she needs an agent, who accepts these appropriate resources and is willing to further the interests of the principal.

Braun and Guston (2003) point out that the Principal–Agent Model has been developed within the framework of the “new institutional economics”, and it therefore shares the basic characteristics of this framework. They cite an instance of the assumption of rational actors striving

to maximise their preferences that are ordered according to their priorities, in which case institutions can constrain actors' choices so that the conscious design of institutions such as contracts may help to overcome typical collective action problems involved in the principal–agent relationship. Two types of typical collective action problems have so far been discussed in literature, and these are moral hazard and adverse selection. These problems are based on what the new institutional economics calls the 'opportunism' of actors; thus, actors are self-interested and thus seek to maximise their personal welfare and seeking their self-interest with guile (Braun and Guston, 2003). This includes but is scarcely limited to more blatant forms, such as lying, stealing, and cheating. In the particular case of principal–agent relations, such 'cheating' or, as is often said, 'shirking' by the agent may happen because the agent usually has an informational advantage vis-à-vis the principal. Braun and Guston (2003) maintain that the principal does not know for sure if the agent will really do his or her best when delegated certain tasks (this is the "moral hazard"), and usually the principal does not have sufficient information on the abilities of potential agents to find the one best suited to do the task (this is "adverse selection"). As agents seek their self-interest with guile, they may hide this information from the principal to reduce their work load or to be hired in the first place. The resulting delegation could then be sub-optimal or even detrimental to what the principal attempted to achieve.

The collective action problems arise as both sides — the principal and the agent — have an interest in entering into the exchange relationship. They both profit by exchanging resources; thus, the principal benefits by getting something done he or she could not otherwise do, and the agent benefits in the sense that he or she gets remuneration of some kind (money, social recognition, and so on). Despite these mutual advantages, the collective outcome may be suboptimal because, as is said, the agent has incentives to seek his self-interest with guile. We should also not forget the possibility of the principal to 'shirk', a possibility often not discussed in the literature. He or she may have incentives not to deliver the resources fully as agreed to in the contract. Due to these co-operative and selfish motives characterising the relationship, principal–agent interaction is a 'mixed-motive game' (Elgie, 2002).

The core task of the Principal-Agent Theory is to design an optimal contract to motivate the agents based on the principal's interests. Since both the principal and the agents are rational economic subjects whose behaviour goals are to maximize their own interests, which makes the

problem of moral hazard often occur in the case of asymmetric information (Yukins, 2010). It can be seen that asymmetric information and goal divergence are two key issues in the principal-agent relationship (Gong, Tang, Liu & Li, 2017). First, asymmetric information makes it impossible for the principal to directly observe the specific action choice of the agents, which leads to the possibility of the agents' opportunistic practices of deceit and fraud, and Second, goal divergence between the principal and the agents is inevitable, because in essence, the interests of the principal depend on the costs (efforts) of the agents, while the interests of the agents depend on the costs (payments) of the principal (Gong, Tang, Liu & Li, 2017; Keser & Willinger, 2007). Consequently, the agents can make use of asymmetric information to reduce efforts and pursue the maximization of their own interests while ignoring or damaging the interests of the principal. Some studies have pointed out that asymmetric information can lead to an increase in transaction costs, so that a bounded rational principal may choose to satisfy the status quo by weighing the marginal cost against the marginal benefit of monitoring strategies (Roach, 2016). Therefore, to motivate the agents to choose the behaviour consistent with the desire of the principal, the design of the incentive mechanism is extremely important in the principal-agent relationships.

Song Yu and Sun (2020) argue that the Principal-Agent Model focuses on the responsive decision of the agents to the principal's goal and on how to design an optimal contract from the perspective of the principal's interests. Generally speaking, in the principal-agent model, the optimal contract should satisfy two conditions: one is incentive compatibility constraint, in which the interests obtained by the agents from the behaviours expected by the principal are not less than those obtained from any other behaviours; the other is participation constraint, in which the interests obtained by the agents from accepting the contract are not less than those obtained from rejecting the contract, that is, the reservation profit. Since the 1990s, the concept of principal-agent has been introduced into the research of policymaking, most notably mentioned is that the role of various funding agencies responsible for implementing policy research can be a double-edged sword for policymakers (Song et al., 2020). With the development of science and technology, researchers have tried to integrate the principal-agent theory with data-driven decision-making to provide more precise policy options for future policy formulation. Song et al. added that, over the past few years, the theory has been increasingly applied to emerging policy issues, such as analysing how to quickly mobilize enterprises to join in low-carbon activities by providing

subsidies, combining the fairness preference theory to calculate the optimal incentives of the government in public-private partnership projects, and deriving an agent-based model for policymaking on energy efficiency retrofit in the building sector under its theoretical framework. In the area of government procurement, predecessors have used this theory to study various agency problems, including assignment of responsibilities, negotiation of purchase price, and evaluation of the effectiveness of procurement strategies (Soudry, 2007).

Soudry (2007) identifies Principal Agency Theory as a tool to understand the relationships between agents and principals. This theory presents applicable suggestions how to diminish or avoid the problems that arise when selecting the ‘best’ contractor during the project. Basic pieces of advice on the formulation of contracts can be derived depends on the behaviour of a contractor. Subject of this theory is the relationship between the customer (principal), who pays for services or goods, and the agent. The principal is limited in his ability to monitor and judge the contractor’s input and output. This leads to mistrust and can only be avoided under high monitoring costs. The outline of the theory foundation of the whole analysis are the assumptions, that in such a dependency, both parties have rational behaviour and rational expectations and interact on basis of institutions like freedom of contract and private property. Secondly, the actions undertaken by the agent and the results of his activities have external effects on the principal’s profit and success. Thirdly, the agent has discretionary freedom due to incomplete and asymmetric information and monitoring costs. The agent’s discretionary freedom leads to uncertainty (since the principal cannot rely on any motivation like loyalty or conscientiousness). The smaller the ability to control the agent’s activity, thus the bigger the information asymmetry, the bigger is the principal’s uncertainty. Fourthly, a divergence of interests exists, that is the agent shows opportunistic behaviour to maximize his or her own expected profit instead of acting in line with the goals of the principal. The three types of opportunistic behaviour are hidden characteristics (the abilities and skills of the agent are not ‘common knowledge’), hidden intention (agent has goals and interests not known by the principal) and hidden action (principal cannot fully control the principal’s actions).

Relevance of principal agent theory

The relationship between principal and agent often leads to the principal-agent problem. The principal-agent problem occurs when the interests of a principal and agent come into conflict.

Companies should seek to minimize these situations through solid corporate policy it is used to understand the relationships between agents and principals (Soudry, 2007). Harping on the same note, Song et al. (2020) pointed out that in such relationships, the agent represents the principal in a particular business transaction and is expected to represent the best interests of the principal without regard for self-interest. They add that different interests of principals and agents may become a source of conflict, as some agents may not perfectly act in the principal's best interests. The resulting miscommunication and disagreement may result in various problems and discord within companies. Incompatible desires may drive a wedge between each stakeholder and cause inefficiencies and financial losses. This leads to the principal agent problem. The principal-agent problem occurs when the interests of a principal and agent come into conflict. Companies should seek to minimize these situations through solid corporate policy. These conflicts present normally ethical individuals with opportunities for more hazards. Incentives may be used to redirect the behavior of the agent to realign these interests with the principal's concerns. The Agency theory helps to explain why people obey unexplainable orders even if against their will. This theory was useful to the present study in understanding the extent to which procurement staff at the institution under study observe policies, regulations, ethical requirements and professional standards set both internally within the organization or those set by governing bodies to ensure that the procurement function is vibrant. Here, the theory helped the researcher to explain forms of relationships likely to be existent between top management and the procurement personnel, in which case, those at the helm of the organizational structure are the principal, and the procurement team are the agents who will be assigned to carry out various procurement tasks on behalf of the principal in line with the policies enacted and regulations put in place to achieve transparency, accountability and honesty and to check unethical practices.

Consonant with the view that there are asymmetrical levels of knowledge and understanding of the task at hand between the principal and the agent (Braun & Guston, 2003; Yukins, 2010), it is predicted that top management (principal) will not have demonstrable skills and competences in procurement. Consequently, procurement staff (agents), who will have the technical know-how in the field, may purposely discharge their duties with dishonesty to serve their own interests at the expense of the overall objectives and performance of the organization. The Principal-Agent Theory gives insight into such crucial aspects of relationships in

organizations to which failure of the organization to perform effectively can be attributed. Thus, holding other factors constant, the theory helps to predict that an organization with a principal-agent relationship that is characterized by what Elgie (2002) terms ‘mixed-motive game’ will struggle to attain its goals irrespective of the resources it has at its disposal. This recognition will help the researcher to keep the eyes peeled on subtle and usually ignored factors that may affect proper functioning of the procurement system apart from the commonly discussed factors. Thus, the Principal- Agent Theory proves to be a very important theory in this study.

Social Learning Theory

McLeod (2016) stated that behaviour is learned from the environment through the process of observational learning. Social Learning Theory originated from Albert Bandura, who believed that behaviourism alone could not explain all there is about learning. He believed that behaviour and the environment affected each other. The changes Bandura observed in a child’s behaviour after watching an adult show aggression triggered him to his social learning theory. Bandura believed we could control our own behaviour through self-regulation. Self-regulation requires a person to self-observe, make judgments about our environment and ourselves, and self-response. People both influence and are influenced by the world around them. Social learning theory also known as observational learning, occurs when an observer's behaviour changes after viewing the behaviour of a model. An observer’s behaviour can be affected by the positive or negative display of behaviour seen.

Edinyang (2016) has it that the Social Learning Theory, which is sometimes referred to as the Observational Learning Theory stipulates that people can learn new behaviours by observing others. This also refers to the reciprocal relationship between social characteristics of the environment, how they are perceived by individuals, and how motivated and able a person is to reproduce behaviours they see happening around them. According to Nabavi (2014), this theory is based on the idea that people learn from their interactions with others in a social context. Separately, by observing the behaviours of others, people develop similar behaviours. After observing the behaviour of others, people assimilate and imitate that behaviour, especially if their observational experiences are positive ones or include rewards related to the observed behaviour.

Lou (2013) asserts that the general contention in Bandura’s concept of social cognitive theory is that much of the development in human cognition is explained by the interplay of internal

personal factors in the form of cognitive, affective and biological events; behaviour; and environmental events. According to Nabavi (2014), Bandura in 1961 conducted his famous experiment known as the Bobo doll experiment to study patterns of behaviour or by social learning theory. Findings of this study revealed that similar behaviours were learned by individuals, and the general observation from this experiment was that people shaped their own behaviour after the actions of models. Bandura's results from the Bobo Doll Experiment changed the course of modern psychology, and were widely credited for helping shift the focus in academic psychology from pure behaviourism to cognitive. He demonstrated that children learn and imitate behaviours which they have observed in other people. According to Banyard and Grayson (2000), Bandura believed that direct reinforcement could not account for all types of learning, and that people can learn new information and behaviours by watching other people. It has generally been concluded basing on the findings of this study, therefore, that people learn from one another through observation, imitation and modelling.

Rosenstock, Strecher and Becker (1988), like all other scholars, attribute the development of the social learning theory to Bandura. They insist that the theory, which is sometimes referred to, or has recently been relabelled as the social cognitive theory, holds that behaviour is determined by expectancies and incentives. In their account, they categorise expectancies for heuristic purposes, which they argue may further be divided into three types, and these are expectancies about environmental cues, expectancies about the consequences of one's own actions, and expectancies about one's own competence to perform the behaviour needed to influence outcomes.

The theory classifies expectancies about environmental cues as those beliefs about how events are connected, and this may include causative relationships which can be presented in simplest terms as the relationship which has to do with what leads to what expectancies about the consequences of one's own actions refers to opinions about how individual behaviour is likely to influence outcomes. This is sometimes also termed outcome expectation. Then finally, there is expectancies about one's own competence to perform the behaviour needed to influence outcomes. This is termed efficacy expectation or self-efficacy.

According to the Social Learning Theory, the notion of incentive or reinforcement is defined as the value of a particular object or outcome. The outcome may be health status, physical appearance, approval of others, economic gain, or other consequences. Here, it is believed that

behaviour is regulated by its consequences (reinforcements), but only as those consequences are interpreted and understood by the individual. Thus, for example, individuals who value the perceived effects of changed lifestyles (incentives) will attempt to change if they believe that (a) their current lifestyles pose threats to any personally valued outcomes, such as health or appearance (environmental cues); (b) that particular behavioural changes will reduce the threats (outcome expectations); and (c) that they are personally capable of adopting the new behaviours (efficacy expectations).

In their explanation of the Social Learning Theory, Mattes and Braton (2007) add that the theory emphasizes the importance of observing and modelling the behaviours, attitudes, and emotional reactions of others, which later leads to the understanding that people learn from observing other people. Harping on the same string, Merriam and Caffarella (2000) further point out that basically the idea of learning by observing, which was initially conceived by behaviourists but was later refined by the researcher Albert Bandura, who having examined interactions among individuals and cognitive processes, noted that observation lets people to see the consequences of other's behaviours, and that resultantly, people can gain some idea of what might follow from acting in one way or the other. In Social Learning Theory, internal cognitive processes are said to have some effect on behaviour as a person's expectations about the outcome of a particular behaviours reflect these effects.

In a nutshell, Social Learning Theory emphasizes the importance of observing, modelling, and imitating the behaviours, attitudes, and emotional reactions of others. The theory overtly considers how both environmental and cognitive factors interact to influence human learning and behaviour.

Relevance of the Social Learning Theory

This theory is very relevant to the present study in the sense that it helped the researcher determine the extent to which the outcomes of observance or non-observance of practices in procurement at other organizations have influenced behaviour change at the City Council in Malawi. For instance, the theory helped examine how adoption of new technological innovations such as ICTs in procurement and observance of procurement policies and regulations by other firms and organizations, in addition to their implications, have influenced the City Councils to embrace the idea of adopting the public procurement practices or not. This includes recruitment of

qualified personnel or arranging in-service training for the existing lot of human resource to acquaint them with new trends in the field of procurement. Thus, the city councils were influenced by such tendencies at other institutions.

Information Infrastructure Theory

Ciborra and Hanseth (1998) point out that the information infrastructure theory states that technology infrastructures should rather be built by establishing working local solutions supporting local practices which subsequently are linked together rather than by defining universal standards and subsequently implementing them. Information infrastructures include the Internet, health systems and corporate systems. It is also consistent to include innovations such as Facebook, LinkedIn and MySpace as excellent examples (Bygstad, 2008). The concept of information infrastructure was introduced in the early 1990s, first as a political initiative (Gore, 1993; Bangemann, 1994), and later as a more specific concept in IS research. For the IS research community, an important inspiration was Hughes' (1983) account of large technical systems, which were analysed as socio-technical power structures (Bygstad, 2008). This theory links to the variable of automation. This leads to the hypothesis that there is no positive association between the level of system automation infrastructure within the district assemblies and their impact on enhancing public procurement practice in Malawi. Recent work on information systems has discussed the nature and the complexity of the Information Infrastructures concept. This leads humanity to consider information infrastructures not as stable entities, but rather as entities performed in, by, and through relations.

Relevance of information infrastructure theory

The information infrastructure is a global network of people, organizations, agencies, policies, processes, and technologies organized in a loosely coordinated system to enhance the creation, production, dissemination, organization, storage, retrieval, and preservation of information and knowledge for people. This study used the Information Infrastructure Theory to explore factors that may determine adoption of the technological innovations in the field of procurement to address the challenges facing the procurement function at the City Councils. In the light of the understanding that technology infrastructures can only be deemed relevant and beneficial if they are built by establishing working local solutions supporting local practices which

subsequently are linked together rather than by defining universal standards and subsequently implementing them, the study determined factors that influenced the City Council to adopt any technological innovations used in procurement, if any have been embraced. If any innovations have been adopted, the study sought to unravel the needs assessment exercise carried out by the Council which influenced it to settle for the said innovations; this involved drawing a clear understanding of how the selected technologies, if any, responds to the needs identified at the needs-assessment stage.

Empirical Review on Public Procurement Reforms in the world and Sub-Saharan Africa

Throughout history, governments and international organisations have been preoccupied with the issue of how to use legislative and public policy changes to modernise, streamline, and enhance public procurement procedures (Schooner et al., 2008). Countries that have been modernising their public procurement systems have aimed to benefit from increased competition, which leads to increased efficiency and decreased contract prices (Bovis 2010; Elliott 2007). Specifically, since the 1990s, a wave of reforms has been launched in both developed and developing countries in response to the plodding of international organisations like the EU, the World Bank, the Organisation for Economic Co-operation and Development, and the World Trade Organization-Agreement on Government Procurement (WTO/GPA) of 1994 and its revised version (OECD) (Evenett & Hoekman 2003).

In Kenya, major reforms in the field of public procurement were observed in 2001, the year in which the old guidelines operating under the Central Tenders (CTB) Board were abolished. It was observed that the Central Tenders Board exhibited a myriad of inadequacies which included, among several others, the fact that it seemed not to have the capacity to unify and coordinate procurement functions in all the ministries, departments and agencies of the government, and that it left out parastatal organisations and corporations, which are equally important components of the government system. Subsequent to these limitations, it was observed that corruption and thievery of public money were rife considering that no proper mechanisms to check the vices were in place. To address this public concern, the government of Kenya enacted the Exchequer and Audit (Public Procurement) Regulations in 2001, which was followed by the approval and gazetting of the Public Procurement and Disposal Act in 2005, and it came into operation a couple of years later.

The development of Kenya's Public Procurement and Disposal Act was predicated around five foundational concepts, namely: impartiality, distributive justice, openness, efficiency, and economy. The aim was to ensure that all groups all regions that used to be underprivileged by the previous legal frameworks were catered for. These regions can be grouped into six large categories, and these are: small enterprises, micro enterprises, disadvantaged groups, citizen contractors, local contractors and citizen contractors in joint venture with foreign forms. The history of public procurement in Kenya, however, dates from the colonial period through the post-colonial to the present day. It is indisputable that, with the enactment of the Public Procurement Act, there have been significant changes in the management of procurement functions of the government and public institutions. For instance, a high level of transparency and accountability has been recorded ever since the law was passed (Adili, 2014). This is consonant with the expert argument made by Robert Hunja, World Bank procurement specialist, who indicated that some of the main objectives of enactment of public procurement systems and policies is to put in place a robust and efficient procurement system. He went on to illustrate that the procurement system ought to be overseen by a precise legal framework that sets forth guidelines for efficiency, transparency, and enforcement procedures, as well as an institutional structure that guarantees uniformity in the creation and application of general policies (Hunja, 2003).

Agaba and Shipman (2017) observe several similarities in terms of adoption of policies and implementation of legal frameworks governing public procurement across developing countries. They base their arguments on the observations they made in a series of studies they conducted in Sub-Saharan Africa. In their account, they observe that the previous Uganda's public procurement system was a legacy of the British colonial regime. Later developments have led to enactment of new procurement laws and policies to address inadequacies of the procurement acts that were developed by the colonial regime.

According to Agaba and Shipman (2017), public procurement occurs in the majority of developed nations within the confines of international agreements, such as the Government Procurement Agreement of the World Trade Organisation or the Procurement Directives issued under regional accords like the European Union or the North American Free Trade Agreement. Most underdeveloped countries' public procurement is exempt from these international standards. As a result, the demand to make changes may have been less intense, and some developing nations

preserved a procurement structure similar to that that existed in the colonial era. However, the drive for reform has intensified in recent years, partly as a result of conditions set by the World Bank and other donor institutions as conditions for giving development aid, but primarily because the inefficiencies of unreformed systems have become obvious. The majority of donors believe that for their money to be used successfully to support development, there must be a functional procurement system in place. Donors may demand to use their own protocols if the host nation does not offer such a system. There has been a trend in recent years for using national systems where these are suitable, through multi-donor budget support programmes (Abeillé, 2003). Because most developing nations prefer the flexibility of getting development aid in the form of budget support, they have an incentive to change their public procurement and financial management systems.

Agaba and Shipman (2017) observe that the features of the Ugandan public procurement system prior to the inception of the reform programme in the late 1990s were typical of many developing African countries that were at one time British colonies or protectorates. Procurement was centralised, with contracts above a threshold value of US\$1,000 being awarded by a Central Tender Board in the Ministry of Finance, based on regulations that had been approved in 1977. There were separate tender boards for the Police and Military. Procurement of many items on behalf of ministries was undertaken by the Government Central Purchasing Corporation. The Corporation had been set up by statute in 1990, replacing a central purchasing organisation within the civil service. While these arrangements offered the advantages of consolidated purchasing and central control, the Central Tender Board was unable to keep pace with the expansion of government activities and their attendant procurement requirements. There was a consequential backlog of tender submissions and the procurement process became protracted. International and foreign aid organisations, which account for nearly half of all development expenditure in Uganda, considered public procurement to be a key obstacle to effective service delivery and development.

Further developments regarding enactment of procurement policies can be extracted from the case of the Republic of South Africa. The government of South Africa has developed its public procurement regulatory system around five key principles, and these are: fairness, equitability, transparency, competitiveness and cost-effectiveness. All procurement activities by every

government agency or department are measured by these five principles which serve as the standards.

Fairness and equitability require that a procurement process be procedurally fair and are concerned with the manner in which it is conducted. A pertinent example to illustrate the two principles is that all the parties who are involved in a procurement activity must be given the same information and opportunities. The principle of transparency calls upon the citizenry, particularly people involved in the procurement transaction or process, to exercise ultimate openness and accountability. This, among other requirements, involves ensuring that all procurement processes are conducted in public and not behind closed doors or in camera. Further still, the principle of transparency stipulates that all relevant information on matters of procurement must be available and accessible to every interested party. This includes information concerning rules and regulations on public procurement practices. Thus, rules on procurement activities in South Africa are supposed to be standardised and made known to all the people.

Finally, the principle of transparency stipulates that information regarding government contracts must be always available and that it must be accessible by the citizenry every time one needs the said information. The principles of competitiveness and cost-effectiveness revolve around the notion of cost. It is a requirement that every organ, institution, department, entity or individual should take into account the concept of value for money by ensuring that the goods and services being procured are obtained at the lowest cost. This has to be done while cautiously paying ultimate attention to rules and regulations stated in the other principles discussed in the foregoing paragraphs. Additionally, the government of South Africa has made strides to improve the performance of the public procurement system by incorporating new trends in the existing procurement rules and regulations. The new aspects include creation of procurement opportunities for persons who were previously deemed to be underprivileged; ensuring that there is an increase in focus on local content; increased focus on corruption in the entire tender process; and, deliberate concerted efforts to develop the small, medium and micro enterprises considering that this sector is globally recognised as one of the most effective factors or driving forces that will catalyse socioeconomic development and job creation. Nkinga (2003) observes development of reforms in the public procurement system in Tanzania which are not very distinguishable from those of other countries in the region or sister regions.

According to Nkinga (2003), the government of the Republic of Tanzania views strong procurement management in the public sector as an instrument for accomplishing political, economic, and social objectives. Stakeholders in the public domain are expecting to see a better utilisation of public funds in an era of limited resources and a greater need for transparency and accountability in government. This observation necessitated establishment of a special taskforce to look into matters relating to public procurement to examine the effectiveness of the laws and policies governing procurement in the country. There was an assumption in the previous public procurement policy that supplies, machinery, and plants had to be bought from the departments of government stores which include; the Government Stores operated by the Ministry of Works, the Medical stores operated by the Ministry of Health, the Veterinary Stores and the Maji Stores operated by the Ministry of Water and Livestock Development and the Government Press Printer operated by the Prime Minister's Office, and or the Electrical and Mechanical Division within the Ministry of Works. To acquire and provide products to various government and ministries departments, the Government Stores Departments were established.

Nkinga (2003) points out that under the old public procurement system for Central Government and local Government Authorities in the Republic of Tanzania, procurement was required to be made through the following entities: Government Stores Department within the Ministry of Works for all stationery, office supplies, fuel, lubricants, Medical Stores Department for all medical or pharmaceutical supplies, Veterinary Stores Department for all veterinary supplies, Maji Stores Department for all supplies related to water supply, Government Press for all printing and forms, Contractors approved by tender boards for procurement other than the first five points above.

Additionally, it was specified in the previous public procurement rules and regulations that public institutions would be given preference and procurement duties in cases when there was a competition between private bids and public institutions. Public institutions within the district or region where the procurement was being made were to be used when there was a competition between public institutions in various locations. Several various legal frameworks, regulations, norms, and procedures are used in public procurement under the stated Central Government, as follows: The Exchequer and Audit Ordinance CAP 439 of 1961 provided for the control and management of Government funds. The procurement process for acquiring goods and works was

articulated in the Financial Orders Part III (Stores Regulations), 5th Edition, 1965. These Stores Regulations were used in accordance with Section 7 of the Exchequer and Audit Ordinance, CAP 439 of 1961. These were applicable to Ministries of the Central Government. In 1991, the government issued particular General Guidelines for the Procurement of Works, Services, and Supplies under the Ministry of Works' Integrated Roads Project. In October of 1991, the regulations were issued. These regulations, as the name implies, were solely applicable to the Integrated Roads Project. The Ministry of Education and Culture has its own set of rules and regulations. The Central Medical Stores Department had its own legal framework, the Medical Stores Tender Board Act No 13 of 1993. The Ministry of Defense and National Service operated two different procurement systems namely, one under the Ministry Headquarters operated under the Exchequer and Audit Ordinance, CAP 439 and Financial Orders Part III (Stores Regulations), 5th Edition, 1965 of 1961 and the second one under the Tanzania Peoples Defence Forces and the National Service operated under the National Security Act.

After ten years of decentralisation of government administration under the Decentralisation Act of 1972, Local Government Authorities were re-established in 1982. The re-establishing laws, that is, Local Government (District Authorities) Act No 7 of 1982 and the Local Government (Urban Authorities) Act No. 8 of 1982 gave the local authorities the objectives among others of promoting economic development within their areas of jurisdiction. Public Procurement in the Local Government Authorities was therefore, regulated by the Local Government (District Authorities) Act No 7 of 1982, the Local Government (Urban Authorities) Act No 8 of 1982 and the Local Government (Finances) Act No 9 of 1982. Pursuant to Section 42 of the Local Government (Finances) Act No. 9 of 1982, the Urban Councils' Financial Memorandum was issued in 1983.

The Republic of Tanzania's parastatal institutions must follow criteria outlined in the public procurement policy. Tanzania's economy was heavily dependent on state-owned businesses, sometimes known as parastatal firms or organisations, between 1967 and 2000. An estimated 450 parastatal firms, both large and small, existed in 1994. Nearly every significant economic sector was represented by these businesses, including trade, tourism, agriculture, mining, energy, industry/manufacturing, transportation, communications, and construction. It was the duty of holding companies to make fresh investments on the government's behalf. Some functioning firms

were formed under the firms Ordinance CAP 212, while others were incorporated under the Public Corporations Act of 1970. In terms of functionality, parastatal businesses could be divided into two main groups: direct productive businesses and service businesses. Numerous parastatal businesses operated independently of holding companies. These were mostly statutory organisations under the board of directors' supervision of their respective parent ministries. Therefore, in Tanzanian parlance, a quasi-autonomous governmental enterprise that operates independently of the regular civil service framework is referred to as a parastatal. Therefore, the laws that founded the particular parastatal organisations also governed public procurement in such firms or organisations. Every parastatal organisation also established its own rules for procurement and finances.

In addition, as part of the Civil Service Reform Programme, government departments in the Republic of Tanzania were reorganised into Executive Agencies with a great deal of autonomy from central bureaucracy. This allowed them to function more like businesses, which improved their efficacy and efficiency as well as the quality of their services. Initially, 38 executive agencies were to be established. Twelve executive agencies have been established thus far. Public procurement in the Executive Agencies was regulated under the Executive Agencies Act No 30 of 1997 and the Executive Agencies (Finance, Procurement and Stores) Regulations, 1999 – Government Notice No 77 of 19th March, 1999.

The Ministry of Works originally had total authority over procurement in terms of the Republic of Tanzania's public procurement system's structure, organisation, process, and management. A later change of authority placed this duty within the Ministry of Finance. The Financial Orders Part III (Stores Regulations), 5th Edition of 1965 stipulated that the purchase of stores or the letting of a contract, the cost of which was more than 1,000,000 Tanzanian Shillings (currently equivalent to US\$ 1,000) for any one item, required the authority of either the Central Tender Board or the Regional Tender Board.

The Central Tender Board processed tenders for the ministries and government departments except for Urban and District Authorities, Ministry of Education and Culture, educational institutions, parastatal enterprises, Ministry of Defence and National Service and Medical Stores Department. The Government Stores Departments were other institutions authorized to supply a range of common user items to Government. After making purchases from

the Government Stores Departments, the user organisations did not contact the tender boards for approval since they used their bulk purchasing power to secure good prices, quality, and delivery. Government ministries and departments were required to make purchases from government store departments. For usage in the purchase of commodities, works, and other forms of contracts, there were essentially no national standard contract agreements or formal formats available. In order to address this issue and take into account the funding sources for individual projects, the government implemented rules and procurement papers and formats from several sources, including the World Bank, African Development Bank, European Union, and IFAD, to the greatest extent feasible. The laws governing procurement were stringent when it came to the methods that may be used and typically left out crucial steps in the process. The well-known (three) quotation system was the default and favoured method of procurement.

Tanzania's previous public procurement system had several shortcomings, deficiencies, and restrictions. The primary flaw in the previous public procurement system was the outdated and disjointed nature of the procurement regulations. The aforementioned highlights of the legal system revealed significant flaws, including the dispersion of procurement requirements among multiple acts with loopholes and minimal enforcement of penalties. The previous public procurement system also had the following shortcomings: The legal framework was completely insufficient for choosing and hiring experts, as well as for procuring works. The regulations were outmoded, and their origin was in stores management rather than competitive procurement. The authority of the Central Tender Board was eroded by adhoc arrangement in different sectors for example Works, health, education and local government authorities. Too little power was in place, and too little high-value work was being handled by the Central Tender Board. The legal structure, regulations, rules, and processes were not enforced by any regulatory entity. Rules were completely disregarded and a variety of de facto exceptions had been established, either with or without a legal justification. At every point, management data that was necessary to enforce accountability was absent. Too much was left up to the judgement of individual public servants who had no clear directives or guidelines. Employee training in materials management and procurement was poor because it was overly theoretical and unrelated to job requirements.

In light of the weaknesses and limitations, the government of the Republic of Tanzania saw the need for developing public procurement reforms. In 1992, the government of Tanzania

commenced its endeavour to reform public procurement on the continent by hiring a consultant to carry out a study on public procurement and supply management. The study's result made it abundantly clear that Tanzania's public procurement system needed immediate reform due to its numerous flaws. The study's main suggestions were that the government should: Pass a new procurement law that would outline the rules, guidelines, and framework for public procurement; this law should be backed up by comprehensive procurement regulations, Increase power while also putting in place efficient commitment and payment control. bolster the Central Tender Board's role as the main oversight body for all public procurement, Execute a programme of training and human resource development to raise performance and skill levels and give up trying to use a centralised system for government outlets for all purchases.

The Public Procurement Act No. 3 of 2001 was signed into law by the President after new public procurement legislation was ratified by the Parliament in February of that year. The Act went into force on July 1st, 2001. The Act provides a comprehensive coverage of all regulatory aspects critical to public procurement. The new Act: covers all purchases made by public institutions, with the exception of defence purchases and financially autonomous parastatal organisations, shows respect for Tanzania's international obligations at the intergovernmental and global levels, does not address the execution phase or performance of the contract., considers several distinctions between the hiring and selection of consultants and the purchase of commodities, creates a number of tender boards tasked with handling contracts in line with preset thresholds, procurement, and the evaluation of tender papers. Currently, each ministry has set up a tender board with the following cutoff points: Works up to US\$ 500,000, goods up to US\$ 300,000, while consultancy services up to US\$ 100,000. The Tanzania National Roads Agency (TanRoads), one of the technical agencies, has higher thresholds than the following ministries: Works up to US\$ 5,000,000, goods up to US\$ 3,000,000 while consultancy services up to US\$ 1,000,000.

The same thresholds apply to Tanroads regional offices as to ministries. In order to resolve procurement issues prior to judicial review, the Act also establishes the Public Procurement Appeals Authority. The institutions involved in public procurement include the procurement management units in ministries, government departments, district and urban authorities, tender boards, Central Tender Board, Government Stores, Medical Stores Department, Government

Press/Printer, Maji Stores Department, Veterinary Stores and third-party procurement agents. Procurement from Government Stores Departments (Government Stores – Ministry of Works, Maji Stores Department, Government Press / Printer, Veterinary Stores and Medical Stores Department) can only be made if the prices offered by these institutions are lower than or equal to the market prices. The chief executive officer or accounting department is in charge of the procurement division. The officers in charge of procurement support them. Government Ministries with fairly well-established procurement management units include the Ministry of Works, the Tanzania National Roads Agency (TanRoads), Ministry of Water and Livestock Development (Urban Sector Rehabilitation Project and Rural Water Supply Division), President's Office (Regional Administration and Local Government – Urban Sector Rehabilitation Project), Ministry of Energy and Minerals (Songosongo Gas Project) and Ministry of Agriculture and Food Security.

Supporting public procurement regulations were also enacted. The supporting public procurement regulations for central Government, namely the Public Procurement (Selection and Employment of Consultants) Regulations, 2001 – Government Notice No 137 of 13th July, 2001 and the Procurement of Goods and Works Regulations, 2001 – Government Notice No 138 of 13th July, 2001 became effective on 2nd July, 2001. The Local Authority Financial Memorandum of 1997's provisions, which are outlined in the Act, enable Local Government Authorities to conduct their purchases. Under the Local Government (Finances) Act No. 9 of 1982, this Memorandum was created. In compliance with Act No. 9 of 1982, the Public Procurement Act No. 3 of 2001 permits the creation of local government tender boards as well. To address the shortcomings and inconsistencies in the memorandum and update the Public Procurement Act No. 3 of 2001, the Ministry of Finance, the President's Office, Regional Administration, and Local Government are currently reviewing it through the Local Government Reform Project. Eight standard bidding documents, standard request for proposals, guidelines, and standard forms for the evaluation of bids and proposals for the selection and employment of consultants have been released by the government through the Central Tender Board. It is required that these standard bidding documents go into force on March 1st, 2003.

Additionally, the government has started holding workshops to raise awareness of the new Public Procurement Act No. 3 of 2001, with a focus on Regional Administrative Secretaries and Permanent Secretaries first. Additional seminars were conducted in Dar Es Salaam, with

participation from members of parliament serving on the Public Accounts Committee (PAC), the Economic and Finance Committee, and the Parastatal Organisations Committee. More sensitization seminars are being planned by the government in partnership with the British government for specific audiences, such as secretaries to tender boards, accountants, auditors, and others. There were over 2,000 participants spread throughout five zones: Arusha, Mwanza, Mbeya, Iringa/Morogoro, and Dar Es Salaam. Furthermore, as part of the Accountability, Transparency, and Integrity Project, the Central Tender Board will hire a consultant to conduct research and identify the needs for public procurement training.

The United Republic of Tanzanian government is aware of the detrimental effects that corruption has on the nation's economy, especially on the weak and impoverished. The government started taking major steps to stop and manage illegal activity in the procurement and other processes. The government created a number of programmes, organisations, and tactics during the past 35 years to fight power abuse, unethical behaviour, and corruption. However, corruption is still an issue in Tanzania, as shown by independent reports like those published by the Prevention of Corruption Bureau. The United Republic of Tanzanian government has passed a number of legislations pertaining to ethics, integrity, and anti-corruption measures since 1966. Among these are the Prevention of Corruption Act No. 16 of 1971 and the Permanent Commission of Enquiry Act (1966), which sought to prevent government officials and their agencies from abusing their authority, the Act of Economic Sabotage, 1983, the 1984 Act to Control Economic and Organised Crimes, Economic offences were added to the Prevention of Corruption Act by this Act, the 1998 Amendment to the Economic and Organised Crimes Control Act, the Act of 2001, which amended the Public Leadership Code of Ethics, Commission on Human Rights and Good Governance Act, 2001.

However, risk mitigation will remain an uphill battle until the potential cost of engaging in corrupt or fraudulent practices—for example, losing one's job, paying fines, going to jail, or having illicit goods seized—is greater than the benefit of participating. In spite of all these reforms, there still are certain areas that require further improvement in the new public procurement system, and these areas are: the legal framework and organization of the system; Lack of ownership and knowledge of the Public Procurement Act No. 3 of 2001; The need for procurement instructions to be produced; Human resources and procurement training system or institutions; and, limited

Local private sector participation. To further enhance the public procurement system, it has been suggested that the following issues be addressed in the new system's organisational structure and legislative framework. The following functions of the implementing agencies and the Central Tender Board need to be reviewed: (i) The idea of decentralised operational functions and centralised regulatory duties should serve as the foundation for the implementation of the public procurement reform process. More clarification is required on the Central Tender Board's role, responsibilities, and accountability (ii) The ability of the available human resources to carry out the reforms is crucial to achieving increased procurement accountability. The biggest problem is to establish an environment where people at all levels are expected to be responsible and accountable for their actions and where punishments for non-compliance are severely implemented, even though better conditions and pertinent training will help. (iii) Public bodies and businesses that do not receive government subsidies are exempt from the law. It is now believed that all public institutions, regardless of the amount of financing they receive from the federal government, should be included by the Act. Nonetheless, the accountability and sanctioning power ought to remain with the specific public organisations that receive the public monies and necessitate the products, labour, or services.

The Public Procurement Act No. 3 of 2001 faces threats to its long-term viability because ministries and local government authorities are unclear about the act's full potential as a tool for budgetary and financial control. In the ministries and local government, more training is necessary, particularly for elected and managerial positions. The Public Procurement Act No. 3 of 2001 won't be upheld unless elected members and senior management of accounting officers view it as a benefit rather than a threat. This ought to be created as a manual that is taken directly from the Regulations. There is a chance that inconsistent and improper processes will be followed because there are no instructions or manuals accessible to provide clear guidance on how to apply the regulations.

There are hardly any professionals working in the public sector as procurement experts at the moment. The procurement functions are carried out by a multitude of professionals, including quantity surveyors, engineers, architects, and purchasing and supply executives. Since procurement is not regarded highly in the nation, it is not regarded as a career. There has been essentially little training done on the practical side of procurement. The training that ministry

personnel receive in supply or procurement is insufficient and focused on low-level purchases using requisitions and three quotes; it is completely unsuitable for high-level, well-organized procurement. Due to this and the continued use of antiquated public procurement procedures and systems, there has been a significant variation in performance.

Nonetheless, significant attention is just now starting to be paid to procurement education and training. The undergraduate curricula of Mzumbe University include a materials management curriculum. The College of Business Education, the Institute of Finance Management, the Dar Es Salaam School of Accountancy, and the Dar Es Salaam Centre for International Business are among the other institutions that have been established and made available to provide for the many levels of skill training.

There is little involvement from the local commercial sector in public procurement. Local vendors, consultants, contractors, and suppliers lack the capacity to bid in locally and globally advertised tenders, especially when the stakes are high. Due to the exorbitant interest rates they demand, local contractors and suppliers frequently lack the ability to obtain credit and tender guarantees from banks and insurance providers. Local vendors, contractors, consultants, and suppliers don't think they are getting enough chances to take part in the public procurement process in their nation. Nkinga (2003) says that there are several lessons that Tanzania's experience with public procurement reform offers that may be universally applicable to other nations: (i) An entirely distinct set of circumstances led to the creation and operation of the previous public procurement system, which lasted for a long time. (ii) Approach and attitude adjustments are required as a result of new and updated procedures. Misunderstandings of novel concepts, legal frameworks, rules, and procedures are common. For this reason, provisions have been established for sensitization, training, and distribution. (iii) Although change is a constant, it must be properly managed because it is not always welcomed. (iv) The public procurement system needs to be reformed in order to hasten the implementation of a sound financial management system. A sound legal framework supporting a public procurement system can significantly contribute to fulfilling the fundamental requirements of an effective financial management system. (v) The ability of the Central Tender Board to guide, manage, oversee, and keep an eye on the numerous procuring bodies, as well as the participation of elected officials and staff members at all levels, will be critical to the public procurement reform's successful execution.

Another compelling example that highlights significant trends about the necessity of public procurement reforms in low- and middle-income nations is the situation of Ghana. Another compelling example that highlights significant trends about the necessity of public procurement reforms in low- and middle-income nations is the situation of Ghana. The historical study presented in this research makes it abundantly evident that this has been acknowledged since the colonial era. There have been attempts to develop public procurement regulation in Ghana, the challenges associated with those attempts and the events leading up to the promulgation of the Public Procurement Act 663 (PPL). However, the PPL has been plagued by a number of anomalies, which have led to certain accusations being levelled against it. (Osei-Afoakwa, 2013). Prior to gaining independence in 1957, Ghana's (then known as the Gold Coast) public procurement system adhered to the British colonial system, which placed Crown Agents in charge of acquiring goods, works, and services for the colonies (World Bank 2003a). In the territories, protectorates, dependencies, mandates, and Crown Colonies collectively referred to as the British Empire at the time, the Crown Agents served as the exclusive agents for the acquisition of commodities, works, and services for the governors and administrators of British colonies (Sunderland 2004). In a time before modern information and communication technologies like cell phones, facsimiles, and the internet, the British Colonial Governors and Administrators were stationed far from the British Empire's capital, London. As a result, it became practical to designate agents to handle colonial business for them in London. Back then, the colonies were partially funded by grants, and the agents had the authority to accept and record any funding from the British Treasury for the colonies they represented (Crown Agency 2011). The agents thereafter adopted the unofficial title of Crown Agents after the agency arrangements were formalised through a formal appointment by the Crown (Crown Agency 2011). They were authorised to conduct financial transactions on behalf of these colonies via the same agency structure. Afterwards, the Crown Agents underwent restructuring to become a British public company. Under the colonialist overseas development plans, it was employed in this form and capacity by colonial officials to oversee the construction of infrastructure projects such as ports, trains, roads, and bridges (Sunderland, 2007). On behalf of the colonial government, the Crown Agents occasionally secured finance through loans, hired consulting engineers for the design work, acquired and shipped the necessary supplies and equipment, and oversaw the construction as project managers (Crown Agency, 2011).

In a bid to modernise, simplify and improve public procurement practices using public policy and legal reforms as has been the case all over the globe and over the years among nations and international bodies, the government of Ghana embarked on carrying out public procurement reforms in the year 2003. These reforms were done with a view to address challenges that the old procurement system was faced with (Osei-Afoakwa, 2013). Extremely substantial shortcomings in the public procurement system were noted in the World Bank's 1996 Country Procurement Assessment Report (CPAR). The shortcomings encompassed a vacuous legal structure, absence of standardised protocols and guidelines, inadequate proficiency of procurement personnel, and ambiguous institutional and organisational configurations for managing procurement and contract award decision-making (World Bank 2003a and Parliament of Ghana 2003). The additional drawbacks include unclear public procurement policies, poor contract management techniques, insufficient preparation for procurements, and opaque procurement processes (World Bank, 2003a). Moreover, the CPAR of 2003 verified that public procurement failed to provide value for money due to systemic inefficiencies. Osei-Afoakwa (2013) asserts that the 2003 CPAR report asserted that the nation could save an estimated 25% of procurement costs with the implementation of an enhanced procurement system. This can have very significant effects on how best to use public funding in underdeveloped nations. Therefore, it should come as no surprise that the government joined the growing number of international leaders who were focusing on changing their public procurement policies and legislation.

Particularly, the following areas of concern were highlighted:

Absence of a Uniform Public Procurement Institutional Framework

There was no institutional framework designed to carry public procurement business in an orderly, consistent and controlled manner. As a result, several procurement practices proliferated and blossomed. Moreover, no serious effort had been made to provide a comprehensive guidance on the scope and procedures of public procurement in Ghana. Procurement activities funded through the Government of Ghana budgetary allocations were regulated by the Ministry of Finance by means of circulars and these circulars complemented procedures (established through conventions) used to control procurement by the Ministry (Anvuur & Kumaraswamy 2006). Agencies partly funded by Government appeared to enjoy liberties with the choice of procurement

practices they adopted. On the other hand, projects under the World Bank and donor regimes used the World Bank and the donor-specific procurement guidelines and procedures respectively. With the array of partly funded Agencies, donors and development partners in the country this situation led to series of uncoordinated public procurement practices organised under loose structures.

The Absence of a Public Procurement Policy

The absence of a comprehensive and principles-based public procurement policy offered a serious setback for the procurement system (World Bank, 2003b). To a large extent this was due to the absence of a central body with the appropriate capability and technical and professional expertise to assist in the development of a consistent public procurement policy (Public Procurement Bill, 2003). As a result of this, uniform rules and regulations required to guide and monitor public procurement were generally not available.

Public Procurement Human Resource Capacity Gap

There existed a vast shortage of trained procurement professionals and this reflected in the general lack of professional input in the public procurement and contracting process. In the MDAs, projects were sometimes being managed by personnel who were not necessarily procurement professionals and therefore did not have requisite skills and expertise (Anvuur & Kumaraswamy 2006). Up to date, a major challenge in the public procurement system of Ghana is the absence of a capable procurement professional class in sufficient numbers to ensure efficiency in the procurement function.

Absence of a Comprehensive Public Procurement Regulatory and Legal Framework

There was no comprehensive legal and professional framework to regulate public procurement. Without a regulatory framework, rules and standards in the award and execution of public procurement contracts, the process could be abused. In the face of this omission, corruption in public procurement could not be effectively managed. Abuses had been alleged in rumours of inflation of contract costs and diversion of public funds through all kinds of alleged manipulations of the contract system. In some cases, as alleged, the abuses had found expression in the

proliferation of white-elephant projects which were sometimes abandoned after huge amounts of public funds had been paid to contractors for mobilisation. Amid bad contract management practices corruption in public procurement was suspected to have thrived to a crescendo.

Roles and Responsibilities of Public Procurement Stakeholders were not Defined

The absence of a comprehensive procurement law worsened by the non-existent professional set up to clearly define the roles and responsibilities of the participants in the public procurement system made it difficult to trace responsibilities and apportion blame for inefficiency and wrongdoing (Public Procurement Bill, 2003). Where wrongdoing was suspected, there was neither an authoritative protest mechanism nor the basis to deal with complaints and grievances. In the absence of such a process, complainants, whistle blowers and aggrieved stakeholders had no means of receiving attention, redress, or possible corrective remedies.

Osei-Afoakwa (2013) adds that it is pertinent to note that in 2001 Ghana was a highly indebted poor country (HIPC) and that qualified the country to obtain various debt cancellations. Relieves obtained from cancelled debts were to be channelled through various poverty reduction programmes, which emphasised economic growth, investment in the public sector, infrastructure development, strengthening of governance and capacity building. All these could not be achieved under the old order of public procurement system. Government therefore needed reforms to provide a properly working public procurement system, aimed at strengthening procedures, empowered by a modernized regulatory framework and supervised by a well-resourced oversight body to render meaning and focus to its efforts in that direction. The challenges, deficiencies and organizational weaknesses inherent in the public procurement system of Ghana, providing the justification and basis for reforms and the eventual promulgation of the PPL, succinctly stated in the memorandum accompanying the Public Procurement bill submitted to Parliament in 2003 and very well-articulated in the Parliamentary debates which followed the laying of the Bill in Parliament (World Bank, 2003b; Public Procurement Bill, 2003), clearly confirmed the CPARs of 1996 and 2003.

Even after the public procurement reforms in Ghana, the PPL has demonstrated to have a number of limitations. Some of the criticisms levelled against the PPL are as discussed by Osei-Afoakwa (201) include: (i) There are difficulties in the application of the provisions of the law to

“very low value procurement items” as participants in the sale of such items are unable or unwilling to satisfy the qualification criteria. (ii) Specific financial threshold levels for procurement methods and approval and review of procurement contracts have been provided in the law under Schedule 3. The effect of the inclusion of threshold levels as part of the law is that the only way they can be changed is through amendments to the law in Parliament. But since 2003, when these thresholds were provided for, they have not been changed although the current Ghana Cedi values are shadows of the values of the Ghana Cedis used at the inception of the law. Although section 94 empowers the PPA to review the threshold levels, it should still be laid in Parliament for approval. But the law must not necessarily be amended anytime changes in the value of the Ghana Cedi render the threshold levels unreasonable. (iii) The PPL allows sole sourcing and restricted tendering. As they exist in the PPL presently, these sub competitive methods are perceived to be sources of corrupt practices despite the conditions provided by the law for their use including prior approvals by the PPA. Although on paper, these conditions appear stringent, there seem to be enough loopholes in their implementation to create opportunities for abuse. Indeed, they have been cited as avenues for corruption including inflation of prices to facilitate kickbacks and bribery. (iv) The PPL does not provide for the use of modern Information and Communication Technology in the practice of public procurement in Ghana. (v) The PPL gives too much emphasis to events leading to award of contract to the neglect of pre and post contract award events. (vi) The PPL failed to set out in clear terms the principles of integrity in public procurement.

There is the perception that the PPA is not independent enough because it has been placed under the MOFEP, whose procurement activities come under the oversight of the PPA. The PPA should be given the extent of autonomy that will give it the appearance and factual independence. For the PPL to be operationally effective all the implementing agents, including the PPA, should be independent both in form and substance. However, the PPL allows the MOFEP to have an overbearing authority over the PPA. As an agency, the PPA reports to the MOFEP which is its sector Ministry. It has been observed that this arrangement is not good enough. In Ghana, the MOFEP wields a lot of influence in the public procurement system.

The PPL does not lay appropriate emphasis on code of ethics and conflict of interest policy in public procurement and fails to provide detailed government-wide ethical standards that define private interests in relation to public interest. Unfortunately, the law only mentions code of ethics

in passing and leaves the details to be provided by the PPA without a guide. There are inconsistencies in the rules relating to the timing and mode of advertising the National Competitive Tendering solicitation documents. As the law stands, there is no time provided for the publication of the document neither is there any rules on how to publish it.

The PPL does not provide any role for civil society and the media in the public procurement process. Given the importance of civil society and the media in monitoring of public activities generally it is inappropriate that the law that has as its main objective to achieve a judicious, economic, and efficient use of public funds through fairness, transparency and non-discrimination methods did not assign any specific role to civil society in the procurement process.

The PPL provides for a margin of preference for domestic bidders. Under section 60, domestic suppliers and contractors may be given some preferential treatment upon approval by the PPA. But it is feared that giving advantage to local firms could perpetuate inefficiency and increased cost by compromising the principles of open competition and value-for money. The PPL is silent on such emerging public procurement concepts as Public Private Partnership (PPP) and Framework Agreement. Moreover, it does not provide for the identification, detection and treatment of abnormally low tenders. It is clearly obvious that the PPL has no antidote for the lack of capacity syndrome as to date the public.

Understanding the concept of procurement

Development of formal attempts to conceptualise the term ‘procurement’ coincides with the inception of the idea of recognising ‘procurement’ as a profession around the middle of the second half of the 21st Century (Lloyd & McCue, 2004). Among the champions of the move to define ‘procurement’ was the United States Federal Government who defined procurement as “acquisition by contract with appropriated funds of supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated” (Lloyd & McCue, 2004:3). According to the Federal Government, procurement process began at the point when agency needs were established, and that included the description of requirements to satisfy agency needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management

functions directly related to the process of fulfilling agency needs by contract (Lloyd & McCue, 2004).

Almost all definitions of the term ‘procurement’ that were developed subsequent to that of the Federal Government and are in current use have maintained the key features of that definition. These definitions entail, for instance, that ‘procurement’ includes all stages of the process of acquiring property or services, beginning with the process for determining a need for property or services and ending with contract completion and closeout. Lawino (2009) recommends that the procuring entity should first define the items the institution needs to procure, then define the process for acquiring those items. And finally, the institution needs to schedule the time frames for delivery. He therefore regards procurement as one part of the commissioning process, which refers to a specific method of purchasing services which involves tendering for a contract. Sometimes it is more appropriate for a public body to fund a service through the provision of a grant, but then it will have less control over the precise outcomes to be delivered.

Brammer (2010), for instance, defines public procurement as the acquisition of goods, works and services by Government or public sector organizations. Brammer adds that the acquisition of goods, works and services by government is, and always ought to be, strategic considering that it has multiple economic and social outcomes. Brammer further suggests, therefore, that government systems should purposely put in place measures of checking the efficiency of the procurement system right from identification and authentication of the need to procure a good or service to the last stage of having the good, property or service acquired. Sollish and Semanik (2012) define the term procurement from the vantage point of the role it is intended accomplish in a corporate institution, which may as well be applicable to a non-profit organization and a government system. They state that procurement refers to events handled by a company for proper management of the supply chain. To this effect, they propose that manufacturing organizations should readjust their procurement practices with the aim of enhancing efficiency and promoting environmental conservation. It is further argued that sound public procurement policies and practices are among the essential elements of good governance (KIPRA, 2006).

To justify the salience of observance of all the best practices suggested for all the stages of the procurement process, Phillips et al. (2007) posit that there are tangible benefits associated with effective procurement practices, especially in the sense that they provide the government with a

means of bringing about social, environmental and economic reforms. Otieno (2004) adds that irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated. In the light of this, therefore, they propose that every other procurement decision made by government, and at whatever level, should be made with the core or primary intention of improving the well-being of the citizenry as well as ensuring that the private sector benefits from it. On the other hand, the procurement process should stand the scrutiny of the civil society. This is the reason public procurement decisions have to be made based on set principles, namely; accountability, transparency, fairness and ethics.

Thai (2001), in concurrence, recognises the basic principles of good procurement practices to include accountability, competitive supply and consistency. According to Thai (2001), *accountability* involves putting in place an effective mechanism to enable procuring entities to spend the limited resources carefully and with the knowledge that they are accountable to members of the public at the back of their minds. He further describes *competitive supply* to entail the requirement that the procurement be carried out by competition unless there are convincing reasons for single sourcing, while *consistency* emphasizes the equal treatment of all bidders irrespective of race, nationality or political affiliation. Thai (2001) adds that the procurement process should also uphold integrity by ensuring that there are no such malpractices as bias, bribery, corruption and suchlike when awarding contracts. More still, he adds that public bodies should base their decisions about procurement on accurate information, and that procurement practice should be responsive to aspirations, expectations and needs of the target society. Bowersox, Closs and Cooper (2012) recognise the salience of the notion of logistics management in the procurement process to ensure that procuring entities do not engage in malpractices. They take the term 'logistics management' to include the art of managing the supply chain and science of managing and controlling the flow of goods, and controlling the flow of goods, information and other resources between the point of origin and the point of consumption in order to meet customers' requirements.

Apart from the aforementioned requirements, to enhance openness and clarity on procurement policy and its delivery, it is advisable the public institutions exercise ultimate transparency when acquiring goods and services in accordance with the procurement policy and plan (World Bank, 2003). All these are prerequisite values of good governance (United Nation,

2011). It is from these principles, and the fact that public procurement decisions affect the citizenry, the civil society and the private sector that it is one of the pillars of governance. In other words, public procurement has all the necessary and sufficient conditions to pose as a governance issue, which is why it is actually a governance issue.

In the light of the realisation that an effective public procurement system will have positive effects on the performance of the procurement system and the overall performance of the public institution, a great many governments, both in the developed and developing countries, have embarked on a serious campaign to carry out reforms in the public procurement sector to enable the government realise the value for money predicted in the adoption of the reforms. In advocating the need for procurement reform, a number of the desired outcomes have been considered across several countries, and these are: transparency, which is characterised by well-defined regulations and procedures in which case public procurement officers and the entire system is open to public scrutiny, and clear, standardised tender documents containing complete information. Lastly, transparency encompasses equal opportunity for all in the bidding process. Secondly, procurement reforms have been carried out to ensure that there is a more effective means for fighting waste and corruption and improving financial accountability. Thirdly, public procurement reforms endeavour to ensure integration of the public procurement system with national budgeting procedures. Furthermore, the public procurement reforms seek to ensure a more attractive investment climate by lowering risk. Apart from that, it is expected that the public procurement reforms will have the capacity to ensure a greater competitive pressure to satisfy customer needs. And lastly, the public procurement reforms are expected to produce a streamlined procurement process through greater use of electronic commerce. Foremost among these desired outcomes was a substantial reduction in corruption.

Research has shown that countries whose public procurement systems have carried out the public procurement reforms, have improved the performance of their respective procurement systems (Agaba & Shipman, 2007). Further to carrying out procurement reforms, it is recommended that organisations plan their procurement activities to improve the performance of an organisation. Procurement planning is a vital stage of the procurement process which involves predetermining what procurement activities to carry out when, where, with which supplier and how.

According to Basheka (2008), procurement planning has a large influence on performance. He argues that user departments must be mobilised at the start of each year to develop procurement plans that can be incorporated into the departmental budget. When a procurement strategy is integrated with the organization's budget capability, the end consequences of a budget, particularly reaching timely budget achievement, are determined. The budget's performance is always impacted if these two are not connected. According to Bourne (2005), procurement planning is one of the many methods used to implement the budget, and how the budget is implemented affects the organization's performance. As a result, user departments or internal stakeholders have to be involved in the entire procurement management process because it is linked to performance.

Kanungo (2009) asserts that the participation of stakeholders in procurement-related activities, such as planning, gives them a significant advantage in achieving procurement goals, some of which include achieving performance goals and value for money. This implies that performance will undoubtedly suffer if the planning process is misused and some stakeholders are excluded. According to Basheka (2008), the first step in procurement strategy is to prequalify suppliers and evaluate their past performance and dependability. The budget is then spelt out in detail in the plan for the total amount needed to purchase products and services. From the very beginning to the very end, the procedure must be followed. This procedure is frequently abused by certain public organisations, and when this happens, the amount of money needed to carry out the plan usually goes up. Double purchase will result from the consideration of underperforming suppliers. An organization's performance is impacted by this. It has also been suggested that supplier selection has to be an ongoing procedure in order to adhere to budget estimations. This is a crucial step in the prequalification process for suppliers and ought to be carried out by purchasing departments. The company must evaluate the cost of suppliers and its budget. As a result, according to Monczka et al. (2009), budget estimations ought to be completed for every user department, and supplier websites ought to provide surveys or interviews. This can be achieved by creating forms for supplier appraisals that list the provider's capabilities, financial capability, quality components, organisational structure, organisational procedures, and past performance.

Thai (2004) states that recognising the need and determining the specifications for purchase is the first step in the entire procurement process. This immediately influences project planning, work plans, activity schedules, inventory procedures, invoices, and the amount of capital needed

to operationalize the budget. The establishment of procurement requirements serves as the foundation for determining the results of supplier surveys conducted in the market, as well as their pricing, newly launched products, technological innovations or advancements, alternative products, new sources of supply, levels of competition, and any environmental factors that may impact the supply market. According to Karen et al. (2007), one of the main causes of Kenya's subpar performance in government departments is the country's disregard for the procurement strategies of various departments. Organisations lacked adequate need assessment of jobs and failed to communicate the steps of procurements (Schlosser, 2013). The study evaluated whether Uganda experiences this. Kanzira (2013) discovered that procurement strategy is aligned with available money and cash flow in his study on procurement practises and quality of service delivery in Ugandan public institutions. On funding allocation, however, disputes arise between the departments of procurement and users.

In a related vein, Welikhe (2013) discovered that few staff members were involved in the procurement planning processes of the Uganda National Examinations Board (UNEB) after conducting a comparable study with them. Despite the previous studies reviewed above looking at planning in procurement and its impact on performance not all factors have been dealt with within MWE, this study therefore critically assessed the relationship between procurement planning and performance of MWE while bringing out exactly all attributes of procurement planning and performance as earlier mentioned.

Mturi (2013), carried out a study with the goal of evaluating how well procurement contracts are managed in Tanzanian governmental organisations. The study used the case of Kinondoni Municipal Council. The investigation brought attention to issues with delayed delivery, uncontrolled contract modifications, and a deficiency in functional professionalism. It follows that contract management should adhere to the agreed-upon timelines and that practitioners should receive yearly training to help them anticipate and assess issues and propose solutions. Despite a variety of research on the subject, none have been able to link budget performance indicators to the circumstances at MWE or demonstrate the ways in which contract management affects budget performance. The investigation at MWE was necessary because of this gap. By the study's conclusion, it was clear that procurement planning and MWE performance were positively correlated.

According to Oluka and Basheka (2014), establishing clear plans for managing a contract and creating suitable procedures for spotting non-adherence are also important components of successful contract management towards performance. The procurement ministry's consistently low compliance standards with regard to road construction projects served as the impetus for the study. A closed-ended questionnaire was used to gather data, and the study found factors that contribute to efficient contract administration, but it did not include MWE; rather, it focused solely on certain public sectors. In his research on the design of a performance measurement, Beijer (2012) discovered that noncompliance with the contract management procedure impacts budgetary utilisation and may result in higher unspent balances. Furthermore, according to Beijer (2012), quality and delivery should be considered performance criteria of the budget in order to track the operational performance of suppliers or contractors, as these criteria can be utilised for both analysis and monitoring purposes.

Chepkesis and Keitany (2019) conducted a study to examine the effects of procurement planning on the performance of suppliers in the public institutions. They used Moi University as their case study. The background to their study was the observation that supplier performance has become a critical factor for the organization's success. In this regard, many firms and researchers have attempted to find out variables that affect either positively or negatively on supplier performance. However, very few studies have been carried out on procurement procedures in developing countries like Kenya. Public procurement system in Kenya has been characterized by a weak legal framework and lack of professionalism among public procurement practitioners. The study adopted an explanatory research design. The target population was 119 suppliers in the list of pre-qualified suppliers. The study adopted census for the suppliers to collect data; self-administered questionnaires together with interviews schedule guides were used. Data was analysed using descriptive statistics. The findings indicated planning enhances value for money, enhance quality, encourages proper utilization of resources, planning enables quick decision making and encourages innovations as it is a problem-solving technique and saves time. Therefore, procurement planning enhances supplier's performance in service delivery.

Karanja and Kiarie (2015) sought to establish the influence of effective procurement practices on the performance of an organisation in the private sector in Kenya. The study used a case study of Guaranty Trust Bank. The background to this this study was the observation that

procurement practices integrate various firm's operations and support functions, synchronizing production with new orders, purchasing with demand, scheduling and shipping with customer requirements. The main objective of this study was to establish the influence of procurement practices on an organization's performance in the private sector in Kenya. This study employed a descriptive approach on the influence of procurement practices on the performance of private sector firms in Kenya. The target population for this research study was the 137 employees of GT Bank, Nairobi Headquarters from different functional units. This study had a sample size of 42 respondents drawn from among the employees of GT Bank Nairobi Headquarters. Stratified sampling was applied in grouping the respondents. The study employed the use of questionnaires as the principal data collection tool to collect views from the respondents. Descriptive statistics analysis and multiple regression was used. The results of the indicated that procurement practices, E-procurement and contract management influences organizational performance at private sectors. The study also found that the organization performance at private sectors have improved over the past five years. The study recommends the development and issuing of operational guideline, procedures and task descriptions which provide authority to the purchasing department in private sectors. The study further recommends decisions on outsourcing, establishing long-term contracts and contacts with certified and or preferred suppliers, adopting a supplier strategy based on multi-versus single sourcing, making investment decisions and related to policies concerning transfer pricing and intercompany suppliers.

The effect of procurement policies on effective implementation of commendable procurement practices in the public sector

This section examines studies conducted across the world on how enactment, adoption and observance or non-observance of procurement policies impacts on the effectiveness of the procurement system of a government or institution, and on the ultimate attainment of the intended welfare of the citizenry in a country, or relevant stakeholders, in the case of institutions, in the long run. Enactment of procurement policies that guide the modus operandi of procurement activities in an institution is referred to as procurement planning, and it is a very crucial activity in every organisation irrespective of size and complexity (Kovacs, 2004). A procurement plan serves as a purchasing function through which an organization will obtain products and services from external suppliers. It is expected that every ideal procurement plan will provide details spelling out how the

process of acquiring goods and services will proceed right from need assessment and identification stage up to a point where successful suppliers shall be identified and awarded the contract. The procurement planning exercise will have the same process and steps in every institution (Burt et al., 2003; Jackson & Ombui, 2018). An institution that operates and solicits goods and services without a proper procurement plan is likely to face dissatisfaction emanating from time-consuming detours and substandard quality products and services obtained (Agaba & Shipman, 2007). The performance of the function has been impacted by the failure to implement or postpone implementing recommended procurement planning, which has led to excessively high operation costs, inadequate inventory control, disorganised business operations, and a failure to recruit and retain qualified candidates for the procurement positions. (Chimwani, Iravo, & Tirimba, 2014). This has been confirmed by a number of research studies carried out in selected parts of the world as illustrated in the sections below.

Nawi, Deraman, Bamgbade, Zulhumadi and Riazi (2017) conducted a study on the Malaysian construction industry to explore the benefits and challenges of implementing e-procurement systems in their procurement function. Specifically, the study sought to determine the benefits of introducing e-procurement for tendering and online registration of businesses and companies in Malaysia. Findings of the study indicated that the advantages of e-procurement include massive reduction of operation cost and improved efficiency in government business with the aid of internet-based information and communication technology. To this effect, the study made a recommendation to policy makers to pay heightened attention to infrastructure such as information technology to ensure a better e-procurement implementation in public entities.

Mokogi, Mairura and Ombui (2015) carried out a study in Nairobi, Kenya, to establish the effects of procurement practices on the performance of commercial state-owned enterprises in Nairobi County. The study's particular goals were to determine how buyer-supplier interactions affected the performance of Nairobi County's commercial state-owned businesses; to determine how supplier selection processes affect Nairobi County's commercial state-owned businesses' performance; to ascertain the relationship between organisational capability and Nairobi County's commercial state-owned firms' performance; and, to determine how Nairobi County's commercial state-owned firms perform in relation to the administration of the procurement process. The survey design used in the study was descriptive design. Using questionnaires aimed at managers in each

company's divisions of finance, procurement, production, sales, and marketing, primary data was gathered. Because ninety-six (96) of the 120 questionnaires that were distributed were completed and returned, the study had an 80% response rate. Thirty-eight (38) commercial state-owned businesses that operate in Nairobi County made up the study's population. A random selection of thirty (30) businesses, or 78.95% of the total, was made. The results of the study showed that the performance of the commercial state-owned firms under investigation was significantly impacted by buyer-supplier relationships, supplier selection processes, organisational capability, and procurement process management practises. Based on these results, the study suggested that all state-owned commercial businesses should adopt effective procurement procedures to improve their overall operational efficiency and customer service.

A similar study was carried out by Odhiambo and Theuri (2015) in Kenya. The general objective of this study was to analyse the effects of public procurement processes on organization performance. It determined and analysed the gaps in public procurement in county assemblies using county assembly of Mombasa as a case study. This was guided by three specific objectives: to establish the effects of human resource skill level in the procurement department, to identify the influence of stakeholder integration on the performance of the organization and to determine the effects of supplier management on the performance of the organization. There are numerous cases of exaggerated prices, and behind the schedule projects which is contrary to the public procurement and disposal Act 2005. The Public sector for instant has lost billions of shillings out of procurement decisions made by accounting officers who are not necessarily procurement professional. A stratified random sampling technique was used to select the sample; the strata were derived from the various categories of stakeholders that are involved in the public procurement process directly or indirectly. The study used a proportion of 30% from each stratum to select 111 respondents. The study relied on primary as well as secondary data. Primary data was collected through questionnaires to meet the objectives of the study. The questions were both open ended and closed ended. Secondary data was collected from relevant literature review, business magazines, journals, internet and other relevant material. Responses in the questionnaires were tabulated, coded and processed by the use of a computer statistical package for social science (S.P.S.S) version 20 to analyse the data descriptive statistics such as mean and standard deviation. Tables were used to present responses and facilitated comparison. The study revealed the impact of public procurement

process on the organization performance. The research was limited to a public entity, and thus the researcher recommended further study in the topic of public procurement process among the parastatals and analysis of the challenges experienced. The study showed a high correlation between stake holder integration and organizational performance as well as a high correlation between human resource skill level and organizational performance. It however showed a weak correlation between suppliers' management and organizational performance. The M.C.A and other County assemblies should also enhance stakeholder involvement in their procurement processes by allowing for more public participation in the process.

Another study to examine the effects of adoption of robust procurement practices on the effective performance of an organisation was carried out by Shisanya and Omwenga (2018) on private universities in Kenya. The study was based on the observation that in the present day, procurement teams are facing increasing number of complex challenges in planning, monitoring and controlling of their activities in many organizations especially in private Universities in Kenya. In this study the researchers sought to examine the role of procurement practices on the performance of Marist University, a private university in Kenya. The study's specific goal was to evaluate the impact of contract management, staff training on procurement procedures, monitoring and controls over procurement, and procurement planning on performance in Kenya's private universities. The participants in this study were the staff members of Marist International University located in Kenya. The target population numbered 78 in total. The sample size for the study was set at 78 respondents in total. The population was divided into three strata—management personnel, teaching staff, and non-teaching staff—in order to take a sample. The census method was utilised in the study to reach every strata of the population. Every respondent who filled out the questionnaire was given one by the researcher, and 100% of them returned it. The data was gathered and then concurrently examined using SPSS Version 2.1, a statistical tool for both descriptive and inferential analysis. Since the current study examined the relationship between role and performance, it was immediately qualified to utilise regression and correlation models as analytical tools. Tables were created and presented as a result of the study. According to the research findings, procurement bids are assessed by an independent committee, and top management is involved in the planning and ongoing oversight of the buy procedures. The survey also discovered that close supervision of purchases made in order to manage costs and the

implementation of corrective measures in the event that discrepancies in the procurement procedures are discovered constitute a moderate level of monitoring of procurement. It was also discovered that the institution provided its employees with training on procurement procedures in an effort to somewhat boost performance. Additionally, personnel knowledge and abilities had grown as a result of procurement practise training. Nonetheless, it was discovered that the following obstacles prevented the university from adopting and implementing new practises: delays in procurement of urgently required goods/services due to restrictions by public procurement and disposal regulations, existence of inadequate planning by user departments, complex regulations being affected by the public procurement act, procurement costs being high, and department facing problem of interference by university management in the procurement processes. The study concludes that Marist International University has adopted the procurement practices to a moderate extent and that there is a relationship between the practices of procurement and organizational performance. However, the only factors that affect the university's performance are personnel training and procurement planning. The study suggests that the university's major procurement players develop workable strategies for handling the procurement process. Organisations should prioritise procurement inventory, control, and monitoring in addition to planning and training in order to guarantee improved performance. The procurement process needs to be critically revitalised since it can help organisations adopt contemporary technological practises and trends for managing and resolving procurement-related challenges.

Emmanuel, Abioala and Atoke (2021) carried out a study in Nigeria to examine the effectiveness of enactment of robust procurement policies as a determinant of effective performance of an organisation. The study was carried out on the Ibadan University College Hospital. The fact that the procurement system consistently experiences a high frequency of vested interest, contract inflation, supplier payment delays, and longer procurement cycles served as the impetus for the study. With reference to University College Hospital (UCH), Ibadan, the review investigated procurement policy as a factor influencing organisational performance at teaching hospitals in Ibadan, Oyo State. For the review, a descriptive and survey design was chosen. There were 158 people in the review's population. The following strata—procurement, stores, payment units (Account), and various end user departments—were sampled using a stratified technique. A formal survey was conducted. The instrument was authorised, and correlation analysis, mean, and

standard deviation were used to analyse the collected data. 136 out of the 158 directed polls (86% reaction rate) were recovered. The review discovered that negotiation management (mean worth 4.2581), competitive bidding (mean worth 4.2581), and suppliers' relationship management (mean worth 4.3065), and procurement policy indices utilizing correlation co-efficient: (negotiation the management 0.737, competitive bidding 0.230 and suppliers' relationship management 0.311) were found to have a positive and significant effect on organizational performance of UCH. According to the study's conclusions, procurement strategies are proactive and the answer to improving organisational performance. In light of the results, it is advised that a check list be created to ensure that services and supply purchases are made within the parameters of the budget in order to prevent payment delays. Another important system for achieving organisational success is the training of personnel and providers.

A study was carried out in Kenya by Odumai and Getuno (2017) to examine the effects of procurement regulations on the performance of public secondary schools in Nairobi. The study was conducted in the wake of the adoption of the Education Act and the Secondary School Heads Manual which recognize school head-teachers as the financial controllers and accounting officer, responsible for all school revenue and expenditure management. The modus operandi of procurement activities in public institutions, and schools in particular, prior to these reforms was that procurement and tendering activities were undertaken void of any legal frameworks to serve as reference point or regulating system. Consequently, the procurement and tendering process abounded with anomalies and irregularities which could not be recognized, discovered let alone checked by the system. In a bid to address the said anomalies and irregularities, the Kenyan government enacted the aforementioned Act and developed the manual to guide head-teachers on recommended ways of handling procurement activities with a view to ultimately ameliorate the overall performance of the procurement systems across the public institutions. Among the core issues that were underscored in the procurement regulations that were herein formulated included the need to observe all procurement ethical practices, and to ensure transparency, professionalism and the like. The study by Odumai and Getuno (2017), therefore, sought particularly to establish how ethical practices, transparency, procurement professionalism and inspections and acceptance affected performance of public secondary schools in Nairobi County. To achieve this, the study adopted a descriptive research design with the target population being the staff involved in

procurement in the 76 public secondary schools in Nairobi City County. The researchers conducted a census of the entire population before proceeding with the sampling of participants in the study. The study used primary data which was collected using questionnaires. A pilot test was also carried out in six public secondary schools in the county before the actual data collection to ensure validity and reliability of the research instruments. Data was edited, coded and analysed by use of statistical package for social sciences (SPSS version 23) and presented using tables and graphs. Pearson's correlations coefficient was run to examine the relationship between the independent and dependent variables. The study established that ethical practices, transparency, procurement professionalism and Inspections and acceptance affect performance of public secondary schools in Nairobi City County.

Kamchape (2020) conducted a study in Tanzania to find out the impact of procurement policy and procedures on the performance of supply chain of microfinance bank. The study was guided by five main objectives that sought to evaluate the role of procurement in the FINCA Microfinance Bank performance, and these were: to determine the extent of the procurement policy and procedures in the FINCA Microfinance Banks operations; to determine the impact of ethical practice in the performance of FINCA Microfinance Bank; to establish the effects of Supplier selection procedures FINCA Microfinance banks supply chain performance; to determine challenges that face Procurement Policies and Procedures implementation in FINCA Microfinance Bank; to determine the extent of adherence of procurement policies and procedures; to determine the relationship between procurement policies and procedures on supply chain performance; and, to determine the challenges faced in the implementation of procurement policies and procedure in commercial banks in Tanzania. The research design involved a cross sectional survey of all Microfinance banks in Tanzania. This study is beneficial to all microfinance Banks managers in Tanzania as it increased awareness that adequate policies and procedures exist in line with the organization's overall business policies or strategies. The study established that most of the Microfinance banks in Tanzania have in place procurement policies and procedures that have enabled them achieve transparency, efficiency and accountability in their operations.

The impact of strategic procurement practises on the performance of the Nyandarua County Government was examined by Wanjiru, Kiare, and Marendi (2018). The study made use of agency theory. A descriptive survey study design was used, with 65 representatives as the target

population. Of these, 30 work in the base camp, 20 are distributed across the sub-district workplaces in the area, and 15 are boss officers. The use of statistics was adopted, and all employees were considered responders. Meetings and scheduled surveys were used by the review to collect data from the respondents. SPSS was used to analyse the collected data. The research established a tenuous but significant beneficial association between purchaser providers and the public authority's presentation of the district commitment. The analysis revealed that the acquisition division has enhanced key asset performance, with a mean score of 3.41 and a standard deviation of 0.805, thanks to the exchange of provider data. The review also found that the local government had committed the province providers in a suitable manner. These findings were consistent with the reports from several experts that the board builds trust and accountability with suppliers, which encourages suppliers to share their assembly, design, and transportation expertise with the company.

A study by Kinisa (2020) set out to assess factors that influence stakeholders at the Longido District Council in Tanzania to comply with the Public Procurement Act of 2011 and its regulations, and to identify the major challenges facing stakeholders' in complying with PPA of 2011 and its regulations. The study adopted a descriptive research design. Data was collected using administered questionnaires. The researcher retrieved a total of 50 questionnaires from respondents and he analysed all the data that was collected using IBM SPSS Version 25 for descriptive and inferential statistics. The study revealed a number of challenges facing the procurement function at the District Council which demonstrated non-compliance with the procurement act. Some of the factors that led to non-conformity to the procurement act include: lack of the minimum skills on part of the human resource in the procurement department to run manage the procurement processes and operate activities involved in the procurement function; involvement in unethical practices such as bribery; corruption and conflict of interest among human resources in the procurement department; and, lack of knowledge and skills to use procurement ICTs recommended in the present day to enhance the procurement function of organizations. In view of these findings, the study it was recommended that the District Council should consider addressing the aforementioned challenges that are negatively affecting the proper functioning of the procurement system by offering the human resource in the procurement department an opportunity to attain adequate training in procurement to improve their

performance. Furthermore, it is recommended that all stakeholders in the procurement system should be oriented on the ethical requirements of the profession and enlighten them on the key points of the procurement act to curb all ethical malpractices noticed in the system.

The impact of bidding strategy on project and firm performance was investigated by Wibowo, Astana, and Rusdi (2015). An analysis of the poll and a meeting with sixty-one key workers for hire in four major Indonesian cities provided the information. The review utilized Structural Equation Modeling Partial Least Square (SEM PLS) with SmartPLS 2.0 M3. SEM PLS examination found that offering system straightforwardly affected task execution however circuitous effect on organization execution, while project execution turns into an intervention variable of offering methodology and friends' execution relationship. R-square 0.359663 indicated that the offering system explained 35.97% of venture execution. On the other hand, R-square 0.58309 indicates that venture execution was 58.3% and organisation execution was explained by providing system. Additionally, the offering process indirectly impacted the way the organisation operated, but the project's execution served as a mediator between the offering technique and the friend's execution. The examination demonstrated that all variables were used to project the executives' and friends' execution and establish measurement of offering systems. Differentiating between a list of decisive variables is crucial to help project managers get more involved in nurturing their offering cycle, which will ultimately lead to better execution.

In a quest to examine the effects of procurement planning on public institutions performance with focus on specific objectives, cost estimation, need assessment and quality specifications, Onyango (2014) undertook an investigative study on procurement behaviour in public institutions in Kenya. Literature suggests that procurement planning is one of the primary functions of procurement with a potential to contribute to the success of operations and improved performance (Jackson & Ombui, 2018). Despite this importance, very limited scientific research had been done prior to Onyango's study to examine the extent to which efforts in procurement planning can contribute to effective public institutions performance. The study was based on the procurement models, PPOA manual, PPDA Act (2005), and PPDR (2006). The study provided a guideline on effective measures to be put in place in Procurement planning to facilitate effective procurement which improves institutional performance.

Maroma (2017) carried out a study in Kenya to establish the effect of procurement practices on organization performance in Nyamache Tea Factory. The specific objectives were: to ascertain the extent to which procurement process management affect performance of organization in Nyamache Tea Factory; to examine the extent to which buyer supplier relationship affect performance of the organization in Nyamache Tea Factory; and also, to determine how organizational capacity affects the performance of the organization in Nyamache Tea Factory. The research design for the study was to allow an investigation to retain the holistic and meaningful characteristics of real-life events. It also allowed the study to collect quantitative data which is analysed quantitatively using descriptive and help in processing of collecting data in order to answer the questions of the current status of the subject under study. The study area was conducted in Nyamache Tea Factory in Kisii County. Target population of the study is the staff working in Nyamache Tea Factory. The population of the study was 90 respondents comprising the 3 managers, 6 operational officers, 8 finance officers, 3 procurement officers and 70 employees. Data was collected by use of both primary and secondary data in the study. Primary data was collected using a structured questionnaire and was related to inquiries on material management techniques applied in the factory and their effect on organizational performance. Both open-ended and closed-ended questions was used. Reliability was used by the researcher to get the reliable information on the targeted population and also validity where accurate information was measured relying on the experts and supervisor's opinion and primary data was analysed and summarized by use of tables and percentages. Data Analysis and Presentation Procedure: the quantitative data was analysed using descriptive and inferential statistics. Descriptive statistics involved working out the mean, percentages and frequencies which was used to assess the correlation of the variables. The inferential statistics involved the use of regression analysis to assess the correlation of the variables in the study; and the results thereof interpreted. The findings of this study also reveal that procurement practices under efficient forecasting should be improved so that to enhance the performance in the factory. The study recommended on policy and practice to the government to come up with policies that will make it conducive for firms to effectively and efficiently the procurement practices without any difficult. Finally, the study suggested that future research be undertaken to establish the effect of a single procurement practices on performance of an organization.

Makabira and Waiganjo (2014) conducted a study in Kenya to find out the role of adoption of effective procurement practices on the performance of corporate institutions in Kenya. The study was based on the premise that procurement is an important and expensive business activity for organizations, considering that organizations usually spend a large portion (even up to 70%) of their revenue and operational budget on purchasing goods and services. Further the study was inspired by the understanding that procurement is generally the process of acquiring goods and services as well as hiring contractors and consultants to carry out works and services (Hornby, 2005). The main objective of their study was to establish the role of procurement practices on performance of Kenya National Police Service in Makueni County. Specific objectives of the study were: to establish the role of procurement planning on the performance of Kenya National Police Service; to determine the role of procurement controls on the performance of Kenya National Police Service; to establish the role of procurement monitoring on the performance of Kenya National Police Service and lastly to examine the role of staff training in procurement practices on the performance of Kenya National Police Service. The study adopted Descriptive Research Design. The target population was the 120 procurement personnel in Kenya National Police Service in Makueni County. Stratified sampling and simple random sampling techniques was employed in the selection of 48 respondents. The study revealed that procurement planning, controls, monitoring and staff training in procurement practices have a great role in the performance of Kenya National Police Service. In the light of the findings of the study, the study recommended that the existing procurement practices be reviewed and implement all suggestions on improving organizational performance. Further research was recommended to cover other procurement management practices and on a wider population of state corporations in Kenya.

In a related study conducted in Zanzibar, Abdalla (2014) assessed how the structure and design of the procurement process impacts on the effectiveness or performance of the procurement function in the organization. The study placed particular focus on assessing the time delivery of the product and quality of the procuring items in relation with the existing Procurement Act and Procurement Policy of Zanzibar with a view to establishing how these are related in the procurement process. The study adopted the descriptive or qualitative research methodology, employing a case study research design. The researcher used simple random sampling and purposive sampling methods to select a population of 45 respondents from some selected

departments of user, head of the organization, finance department and procurement personnel within the Ministry of Information, Culture, Tourism and Sports. Simple random sampling was used on the user department, while purposive sampling was employed on the other three departments. The findings of the study revealed that there is a significant and positive relationship between the procurement process and its effectiveness in the time delivery and the quality of the procuring items.

Several scholars have made significant attempts to explore the impact of introducing procurement regulations on the overall performance of concerned institutions. According to Kenyanya, Onyango and Mamati (2011), Kenya has undergone significant development over time from being a system with no regulations in the 1960s to a system regulated by Treasury Circulars in the 1970s, 1980s and 1990s, up to the present age which is characterized by the introduction of the Procurement Regulations of 2006 which have brought new standards for public procurement in the country. Most of the studies that have been conducted on procurement were particularly intended to determine the extent to which the Public Procurement and Disposal Regulations of 2006 can be regarded to have made a difference in public institutions in Kenya (Kipchilat, 2006).

Research has shown that in many African countries, attention to effective management of public resources was not given enough attention. It is to this effect that one of the most common recommendations of the said studies is the call to developing nations to improve their procurement systems (Awoke & Singh, 2020; Basheka, 2009).

Having noticed that there is misappropriation of procurement budgets among public universities in Ethiopia, all of which are fully dependent on government's budget, which means that the procurement budget comes from tax payers, Awoke and Singh (2020) carried out a study on these institutions of higher learning to find out factors that affect the effective functioning of public procurement in the public universities in the country. The main problem that gave impetus to this study was the observation that there were too many malpractices noticed in the area of procurement at the public universities. Some of the undesirable tendencies included the realization that procurement budget deficit had been observed in Public Universities of Ethiopia while 10 to 100 million Ethiopian Birr had been wasted through non-transparent procurement systems, and the observation that employees had been complaining at every staff meeting about the quality of goods and services acquired by the institutions. Further discontentment with the procurement system

resulted from the fact that there were delays in getting the goods and services delivered, poor qualified products and services and overpricing of goods and services as compared to the actual market price. These were the basic problems observed in procurement functions of the university systems.

Aleman and Guererro (2016) conducted research in Switzerland on SMEs and procurement practises in global supply chains. Their primary goal was to determine which SMEs used procurement techniques. They came to the conclusion from their research that providing fair prices is at the heart of most procurement practises. They also discovered that the majority of second-tier SMEs were not eligible to receive the advantages of ethical procurement practises. The analysis yielded no conclusive evidence that procurement practises created by leading businesses have been primarily focused on assisting the development of SMEs. The study revealed a void in the literature on systematic observation and assessment of pro-SME procurement practises and their effects on the targeted SMEs' social and economic upgrading. Zenon (2016) investigated how the performance of a government building project in Rwanda was affected by procurement practises. Examining how procurement practises affect the effectiveness of public procurement management in Rwanda was the primary goal of the study. They discovered that the Bugesera District office development project performs better when procurement strategies are devised. They said that procurement planning and procedures lead to improved performance in construction companies.

A study carried out in Rwanda by Gakunde and Mulyungi (2019) to establish effects of organisational policy on the performance of the procurement function in manufacturing firms revealed that enactment of effective procurement policies contributes grossly towards the performance of the procurement system and the overall performance of an organisation. Basically, the purpose of this study was to assess the effects organizational policy on the procurement performance of manufacturing firms in Rwanda, a case of Bralirwa Limited. The study used a combination of descriptive and correlation research design embracing qualitative and quantitative approaches. The study made use of a questionnaire was administered on 65 respondents, who were comprised of 25 suppliers and 40 staff drawn from procurement and logistic (5), operations and production (20), ICT (5), and human resource (10). The data obtained from the study was analyzed by the use of Statistical Package for Social Scientists (SPSS) program. In addition, a multiple regression analysis was computed for the influence of organizational policy on the procurement

performance. Results indicate that coefficient $r=0.568$, $p=0.000$, implying that 56.8% of the variations in the in the procurement performance could be explained by organizational policy. Further $p=0.000$, suggesting the relationship between the independent and the dependent variable was statistically significant at 0.01 confidence level. The study concluded that organizational policy is a critical component for successful and functional procurement process within the manufacturing firms in Rwanda. Development and implementation of appropriate organizational policies should therefore be embraced by all manufacturing firms in Rwanda.

Awuah, Anane and Egyir (2022) conducted a study in Ghana which sought to investigate the effect of procurement process on tertiary institutions in Ghana. The objectives of the study were to: examine the effect of procurement planning on procurement performance of public tertiary universities; assess the effect of procurement controlling on procurement performance of public tertiary universities; and, ascertain the effect of procurement monitoring on procurement performance of public tertiary universities. A casual research design and cross-sectional data were collected from employees of various tertiary institutions in Ghana to answer the questions the study wanted to address. The data was collected from the respondents was entered into SPSS. The SPSS output was then used to run the regression output as well as the descriptive statistics for data analysis. The results were then presented using tables. The study finds that procurement planning, procurement control and procurement monitoring has a positive and significant effect on the procurement performance of the tertiary institutions used for the study. The study recommends that steps are taken to train the members of staff of all public institutions on the relevance of the procurement process to the success of these institutions. It is further recommended that auditors in public tertiary institutions take steps to uncover any procurement breaches that occur in these institutions so that action is taken to correct such procurement breaches.

Oluka (2014) conducted a theoretical analysis of the difficulties in managing procurement contracts and how they affect the provision of public services. The analysis comes to the conclusion that the tendering and award phases have a significant impact on contract management success. From the beginning of the procurement process, contract management ought to be a planned procedure. However, a thorough examination of the ways in which contract management and performance are impacted by the tendering phase is not included in this evaluation.

Respective of the aforementioned observations, the study set out to identify the basic factors that affect the proper functioning of public procurement practice in public universities. A total of 351 respondents were selected to participate in the study. The sample comprised specially of those employees who were directly involved in the procurement process at top, middle and low levels of procurement management. Specifically, procurement workers, procurement and audit committee and internal auditors participated in the study. The researcher employed multiple regression, and data was run by SPSS version 20. To simplify the task of interpreting data, the researcher presented the data using clearly marked and captioned tables. The regression results revealed that public procurement policy, legal environment, organizational structure, employee ethics, use of the modern procurement ICTs and management of suppliers are crucial factors which have a positive significant effect on the effective functioning of public procurement practice. Contrary to what is a norm in the field of procurement, these were not in place at the universities. To this effect, the study recommended, among other things, that public university should consider amending existing procurement guidelines to ensure a continual observance of ethical requirements of the procurement professions, and that the institution should make deliberate efforts to provide training for procurement workers to improve their performance, and that the colleges should invest in ICT infrastructure and install these platforms to enhance the procurement functions of the university systems.

An akin study intended to explore the procurement practices at learning institutions was carried out by Kimani (2013) in Kenya. The research project sought to establish the factors that were influencing the kind of procurement practices being employed by the public secondary schools in Mathiyo District. Two specific objectives were derived from the aim; first, the study sought to determine whether public secondary schools in Mathiyo District were employing best practices in procurement with regard to budgetary management, leadership, transparency and timeliness in the process; and second, to establish areas of improvement in order to have best practices in procurement in public secondary schools in Mathiyo District. The study was essentially a census survey that adopted a descriptive approach aimed at describing aspects of the procurement practices in the public secondary schools. Questionnaires targeting 124 respondents who are in one way or the other involved in school procurement were used to collect the data. From the findings, it was noted that the public secondary schools in Mathiyo District have to a

reasonable extent complied with the Ministry of Education policies regarding procurement. There however, were some factors that were either complicating or limiting the possibility of having best practices in procurement in place at these schools. Some of the factors found included lack of technical skills in procurement among those entrusted with the procurement task, inadequate funding and external factors like inflation. It also raised issues on the transparency of the process indicating that in most cases there is external influence and failure to adhere to the ethics of procurement. The study further revealed that the procurement process fails in timeliness, a development that was attributed to the complexity of the procurement process and to the fact that, more often than not, suppliers were supplying on credit. This led to frequent situations where those involved in the process take shortcuts to overcome the problem of delays and length of the standard process. In response to these observations, the study made the recommendation; first, that the procurement personnel should be given an opportunity to receive more training in procurement to improve their skills and performance; second, that the procurement department should get timely funding to expedite the procurement process; third, that deliberate efforts be made to tighten all unscrupulous loopholes that compromise transparency and ethics in the procurement process; and lastly, that stakeholders should carry out a review of the prescribed procurement process in a bid to make it shorter and less complex.

Eldin, Ragab, Ragheb and Mokadem (2019) contend that the procurement function represents the largest total sum of organizational expenditure. However, they observe that although this is a procurement fact, the function is still reference as non-strategic and is frequently subordinate to back in the financial segments in the service sectors, and is accordingly considered as a non-value adding function in some organizations. Despite the way that eminent researchers have uncovered that organizations may eliminate waste, realize more prospects and cut expenses if they implement procurement best practices. It is notified that few organizations have adopted procurement best practices, particularly in the service sectors. From the previous studies, it is evident that there are researches undertaken to develop procurement models. Furthermore, most of these models are based on the Manufacturing sectors. Previously the role of procurement was underrated in the service sector. Nowadays, the strategic role of procurement in the service sector is evident nevertheless few studies attempted to develop procurement models in the service sector. In addition, the procurement models available in literature is lacking the focus on the educational

institutions. In the light of the aforementioned observations, Eldin et al. (2019) carried out a research study to examine the effect of procurement practice on organizational performance in service sector. Exploratory research design was used to analyse the procurement processes. The study used a structured questionnaire and semi structured interviews to collect primary data on AAST logistics Managers. The results and findings are subject to be generalized to any educational service, as the researcher used the regression model fitted for the effect of Procurement Practices; Customer Orientation, Strategic Supplier Partnership, Information Sharing, Adoption of IT, Reverse Logistics, Knowledge Management on Organizational Performance. It was shown that there is a significant positive effect of Customer Orientation and Knowledge Management on Organizational Performance, as the regression coefficients are 0.430 and 0.256 and P-values are 0.000 and 0.003 respectively. Moreover, the R square is 0.389 which means 38.9% of the variation of the Organizational Performance can be explained by the independent variables together.

A study by Iregi and Kipkorir (2017) sought to evaluate the effects of procurement processes on the performance of public sector. Specifically, the study set to find out how specification development affects the performance of public sectors in terms of cost; to determine how pre-qualification affects performance of public sector in regard to service delivery; to determine how tender processing affects the performance of public sector in regard to time, and determine how inspection and acceptance affect the performance of public sector in terms of service delivery. This study was centred on and driven by the institutional theory and the legitimacy theory. The study employed a descriptive and case study research design. Data was collected from primary sources using a questionnaire. Qualitative data from interview guides was analysed using thematic narratives. Quantitative data was analysed using Statistical Package for the Social Sciences (SPSS) version 21. A total of 150 questionnaires were administered, and 139 returned the completed questionnaires, recording a response rate of 92.6%. The study revealed that specification development, prequalification, tender processing steps and inspection have a direct impact of public sector performance (procurement performance).

However, it has been noted that it is not enough to enact a procurement policy. Management and concerned personnel in the procurement process need to develop realistic procurement plans that reflect the capacity of the institution to manage and implement. This is illustrated by a study by Davis (2014) which was intended to evaluate how procurement practices

at Kenya Power influence service delivery in the public sector with focus on the provision of electricity. The study was based on the socio-economic and institutional theories. The study drew three main themes from the concept of procurement practices, and these are procurement policy, procurement planning and sustainable procurement practices to establish how each one of them has an influence on service delivery. The case study used a stratified sampling technique to select a representative sample from a target population of 160 employees with a sample size of 100 respondents. The findings revealed that the procurement rules and regulations lack flexibility and that they are hampering the procurement operations as revealed by 77.5%. The study further observed that procurement planning does not take long term cost of ownership into consideration as revealed by 39.4%. Finally, the study revealed through responses from 59.1% of the respondents that there is no Sustainable procurement practice by the company even though it has green policy in places. Respondents attributed the challenges facing smooth implementation of the procurements policies to distractive aspects of the organizational culture as well as budgetary constraints. Confirming this picture, a study by Jackson and Ombui (2018) reveals that critical problems such as weak oversight institutions, poor linkages between procurements and expenditures, delays and inefficiencies and poor records management have significantly affected the performance of the Kenya Agricultural and Livestock Research Organization.

In a study that was intended to establish the factors that influence procurement planning in public secondary schools in Migori County and ultimately determine the influence of development of a procurement plan on performance of a public institution, John and Kenya (2016) explored the effect of staff competency, budgeting procedures, cost estimation and ethics in procurement processes on procurement planning in public secondary schools in Migori County. Self-administered questionnaires were used to collect data on 123 public secondary schools where the target groups were the principals, deputy principals, heads of departments, bursars and clerks. Consensus method was used to select schools in different sub counties. Data was analyzed using descriptive statistics analysis and multiple regressions. The results indicated that staff competence, ethics in procurement processes, budgeting procedures, cost estimation influence procurement planning in secondary schools, and that those secondary schools with proper procurement plans performed better administratively than those that did not have any plans in place.

Belay (2019) sought to establish the effectiveness of procurement practice on the performance of a project in Ethiopia. His study also set out to assess the effectiveness of procurement practice in terms of inventory management practice, need assessment, supplier sourcing and contract management. Put precisely, the general objective of the study was to find out the effect of the aforementioned variables; need assessment, supplier sourcing processes, contract management and inventory management, on project performance. The methodology was designed as quantitative approach since the data which was gathered through questionnaire was quantitative or numerical. Having adopted an explanatory research design, empirical data were collected for testing the hypotheses. The researcher employed the test-retest reliability test, where the consistency of the questionnaire is evaluated over time by Cronbach's alpha (Using SPSS version 22). To analysed data presentations, the researcher used Regression Analysis. The study findings revealed that procurement functions such as need assessment, supplier sourcing, contract management and inventory management play a very important role in the execution of projects.

In 2009, Basheka set out to investigate how procurement planning affected Ugandan local governance. The study's conclusions came from a survey of important administrative and political players from 11 Ugandan local governments. The method for gathering data was a questionnaire. Principal component factor analysis was employed for the study of the data. The findings showed a strong positive correlation between local government and procurement planning in Uganda. The study found that proper procurement planning was necessary due to the significant amount of money local governments had to spend on purchasing goods, services, and other necessities for their daily operations. On the crucial concerns of procurement planning, which is necessary for local governance, recommendations were made to Ugandan policy makers as well as political and administrative stakeholders in local government.

Similarly, Athumani and Minja (2017) assert that enactment and observance of effective procurement policies will have an impact on the overall performance of an organisation. The assertion is buttressed by the findings of a study they conducted in Tanzania which sought to determine individual factors that influence procurement regulatory compliance by Tanzanian local government authorities. The study employed a descriptive survey research design to collect data on four Local Government Authorities in Arusha Region, and these councils were Arusha City Council, Arusha District Council, Meru District Council and Monduli District Council. Using

guided research questions, the researcher made probes into such variables as qualifications of the procurement personnel, staff awareness of procurement rules and regulation, staff training on procurement procedures and employees' workload. To ensure reliability of research instruments, the researcher tested the instruments using test-retest as validated by experts in academic research. Purposive sampling was used to select the appropriate sample size of 185 respondents from a population of 200 respondents. Descriptive (mean) and inferential t-test statistics were used to analyse the data. Results of this study were akin to those obtained in other studies discussed in the foregoing account. They revealed; first, that procurement human resource with higher academic qualification perform better than those with lower or no qualifications at all; second, that procurement staff with demonstrable awareness of procurement rules and regulation complied with the said rules more than those who had little or no knowledge at all of the said regulations; and third, that staff training and employees' workload influence the compliances of procurement regulatory by Local Government Authorities. The study established that individual factors that were explored influence the compliance of public procurement regulations in the LGAs by 83%. Furthermore, it was revealed that local government authorities that complied with procurement regulations performed better than those that did not comply with the regulations or did so only to a less extent.

A study on the effect of procurement rules and practises on the supply chain performance of Kenyan commercial banks was carried out by Mutai and Chirchir (2015). Three main goals guided the study: finding out how closely procurement policies and procedures are followed; figuring out how supply chain performance is affected by procurement policies and procedures; and figuring out what obstacles commercial banks in Kenya face when implementing procurement policies and procedures. A cross-sectional survey of Kenya's commercial banks was part of the research design. A drop-and-pick questionnaire was used to administer the survey and gather data. The first aim was studied using percentages and frequencies, while the relationship between supply chain performance and business integration was examined using regression analysis. Tables and pie charts were used to display the results. According to the survey, the majority of Kenyan commercial banks have implemented procurement policies and practises that have improved their operational accountability, efficiency, and transparency.

According to a study by Jackson and Ombui (2018), procurement planning significantly and favourably affects the provision of services in Kenyan state enterprises. The goal of the study was to determine how service delivery is impacted by the procurement portfolio. Particularly, the researchers set out to determine the effects of procurement planning on service delivery in state corporations in Kenya, where Kenya Agricultural and Livestock Research Organisation served as a case study. The study made several significant observations that eventually led to the conclusion about the relationship between using an effective procurement plan or adherence to procurement regulations and the overall performance of an organization. First, the study found that a business can be sure to provide its clients with efficient service if it analyses previous and future procurement expenditures or spends for products, services, and works. Planning for procurement also involves taking into account an analysis of the risk and difficulty of obtaining goods, services, and works, as well as creating a procurement profile that projects past and future procurement expenditures and related risk levels in the form of a matrix.

Second, the study demonstrated a positive and significant relationship between procurement rules and processes and service delivery, which answers the question of how these factors affect service delivery. It was noted that transparent procurement strategy and the quality of goods, labour, and services are critical components of high-quality, productive, and efficient service delivery. Third, the goal of the study was to determine how logistics management affected the provision of services. It was found that there was a positive and significant relationship between procurement logistics management and service delivery. In short, the researchers found that shorter lead times result from effective product delivery scheduling. Additionally, prompt product delivery, organised order shipping, and the use of the appropriate communication channel throughout procurement all contribute to efficient service delivery. Finally, the study discovered a favourable and significant relationship between procurement budgeting methods and service delivery, attempting to ascertain the impact of budgeting procedures on service delivery. For example, budgeting processes don't make service delivery take longer. Budgeting processes also improve adherence to established protocols. In addition, developing a purchase plan would be challenging in the absence of budgeting processes.

In light of the observations made in their study, Jackson and Ombui (2018) recommend that procurement officials should always develop a full and comprehensive procurement portfolio

of the procurement needs of the organisation before embarking onto any procurement activity, and that management should come up with procurement policies and procedures that will guide how the activities are conducted. In their scope of description of procurement policies and procedures entails that the flow of procurement project materials be managed from its origin to the consumption destination, and that management should always do a timely procurement budgeting.

In a separate study which was conducted by Ananel, Adoma and Awuah (2019) to determine the effect of procurement policy, procurement planning and sustainable procurement on service delivery, it was concluded that procurement policy, procurement planning and sustainable procurement significantly predict service delivery of an organization, and hence the study recommended that the management of public organizations must continuously invest in sustainable procurement, procurement planning and procurement policy to enhance service delivery to the public. The study was conducted on management and staff of the Volta River Authority. Primary data was collected using structured questionnaire, and it was analysed using SPSS version 32.0. The study found that 73.6% variations in service delivery were explained by Procurement Policy, Procurement Planning and Sustainable Procurement. The study further revealed that Procurement Policy ($\beta = 0.623$ $p=0.000 < 0.05$) is a significant determinant of service delivery. Thus, a unit change in procurement policy will result in 62.3% change in service delivery. Secondly, the study revealed that procurement planning ($\beta = 0.027$, $p=0.080 < 0.05$) is a significant determinant of service delivery, such that a unit change in procurement planning will result in 2.7% change in service delivery. Lastly, sustainable procurement ($\beta = 0.39$ $p=0.000 < 0.05$) was discovered to be another significant determinant of service delivery in such a way that a unit change in sustainable procurement will result in 39% change in service delivery. From the model estimation, procurement policy was the strongest predictor of service delivery followed by sustainable procurement and lastly procurement planning. In a nutshell, the study revealed a strong significant positive correlation between procurement policy and service delivery, and it demonstrated a strong significant positive correlation between procurement planning and service delivery. Finally, the study observed that there was a significant positive correlation between sustainable procurement and service delivery.

Kipkemoi (2017) embarked on a research study whose area of focus was to determine how organizational performance is affected by procurement practices. The target population of this

research study were the finance and procurement employees of the East African Portland Cement Company Limited. The study used a descriptive research design, where A survey was used to have staff from the procurement and finance departments fill out questionnaires to respond to questions on specific topics surrounding procurement practices. The study revealed that there is a very strong relationship between procurement practices used in an organization and the overall performance of the organization. Thus, adherence to effective and institutionalized procurement policies increase efficiency of the entire organization leading to a desirable performance of the system.

A similar research study was carried out by Eldin, Ragab, Ragheb and Mokadem (2019) to examine the effects of procurement practice on organizational performance in service sector. An exploratory research design was adopted for the study. Structured questionnaires and semi structured interviews were used to collect data on logistics managers at the Arab Academy for Science, Technology and Maritime Transport, but the results and findings are subject to be generalized to any educational service, as the researcher used the regression model fitted for the effect of procurement practices on organizational performance. The following attributes of procurement practices were examined in the study: customer orientation, strategic supplier partnership, information sharing, adoption of IT, reverse logistics and knowledge management. It was shown that there is a significant positive effect of customer orientation and Knowledge management on organizational performance, as the regression coefficients were 0.430 and 0.256, and P-values are 0.000 and 0.003 respectively. Moreover, the R square was 0.389 which means 38.9% of the variation of the organizational performance can be explained by the independent variables together.

Karanja and Kiarie (2015) studied Guaranty Trust Bank to determine the impact of procurement practises on organisational performance in the private sector. Their goal was to demonstrate the impact of procurement practises on the performance of a private sector organisation in Kenya. The study revealed that procurement practises had a significant impact on the performance of private-sector organisations and helped to save money that would otherwise have been lost. As a result, the private sector is not wasting time. According to the study, procurement planning is a significant driver to organisational performance.

Tweneboah and Ndebugri (2017) carried out a study in Ghana whose main objective was to evaluate the effectiveness and economic impact of the procurement law on procurement systems

in Public Sector Administration. This study sought to compare the effectiveness of the newly enacted procurement policy in the country which had replaced the old one. The new procurement system, which was in operation for about fifteen years by the time the study was conducted, has the core purpose of managing the procurement process, providing turnaround time for invoices, tracking of total spending by commodity type, as well as financial commitments and cash flow management. The study revealed that the current procurement system in use at various Public Institutions in Ghana is better than the one used prior to the enactment of Act 663. The procurement Act (Act 663) has impacted positively on public procurement practice in the area of transparency, accountability and non-discrimination, which attributes have ameliorated the overall performance of public institutions.

Makabira and Waiganjo (2014) investigated the impact of procurement practises on the success of corporate firms in Kenya. Their purpose was to validate the importance of procurement planning, controls, and procurement practises on KNPS performance. Kenya National Police used procurement practises in its operations, and the organisation profited by using procurement control practises, according to the findings. The organisation benefited by implementing controls practises in a variety of ways, including the prevention of needless stocking of things, proper use of cash, improved service offering, quality materials, and improved resource allocation. From the literature reviewed in this section, it can be concluded that procurement policies, regulations and plans play a very vital role in improving the performance of organizations or institutions. However, there is need for these organizations or institutions to develop viable and effective procurement plans which are in accordance with the national or regional procurement regulations.

This can be buttressed by the case of Somaliland, where organizational performance is represented by to a reasonably great extent by the ability of a firm to attain its pre-planned objectives in accordance with formulated standards and implementation matrix (Hernon, 2014). It is thought that ethical procurement must provide good value for money because this is the foundation of any sustainable purchase. Organisations try to provide citizens with the best overall value for their money. Client pleasure, the public interest, fair play, honesty, fairness, and equity must all be considered. The effectiveness of a firm's procurement function can provide a better return, which forms the foundation of long-term, dependable procurement ethics, which has recently been of significant concern (Robert, 2011). According to Robert (2014), being honest and

considering existing procurement laws is essential because it raises firm net income and operating cost which translates to improved firm performance. Robert (2014), further explained that, the goal of performance measurement in organisations is to provide open and transparent processes for producing accurate and reliable information about project progress and the implementation of ethical practises that can be used to strengthen information decision making. He goes on to say that return on assets and equity can be used to measure organisational performance. Organisational performance measurement must be linked with the overall performance management system and considered as a journey towards maximising the efficiency and value of measurements.

Yee-Loong, Chong, and Ooi (2008) sum it up well in their assertion that a well-organized and executed procurement plans can make it possible for corporations to decrease their inventories, have better customer service, diminish costs and aid quick inventory turns. Over and above, they argue that a good procurement plan has the short-term objective to increase productivity of an institution and decrease inventory and reduce lead time, and a long-term impact on increasing company's market share and having outside integration of the procurance. For procurement to be effective in organizations or in councils, there must be good strategic procurement planning. The management of the company must develop good strategic plans that guides the operations of the company. The aim behind is to achieve the goal of the organization (Basheka, 2008). To achieve this, management team must consolidate all the plans from different departments. When an organization has good plans, it makes it to assess its performance whether it is meeting standards or not. Oyuke & Shale (2014) explained that an organization or company that has good plans benefit a lot since it is always on track. So, an organization having good procurement plans can utilize the data they obtain from different departments. The data obtained from different departments helps to develop need assessment and proper evaluation of the activities of the organization.

Procurement involves having identifying needs for all departments, evaluate different methods that can be adopted to source different resources and the resources have to be allocated to different departments in accordance with the procurement policy of the company (Oyuke & Shale, 2014). In most organizations, they follow a procurement framework that guides on different three aspects such as control, monitoring and lastly evaluation of the procurement process. It makes it easier to evaluate the procurement activities of the company and allows the participants

to tender their bids which helps to address the issues raised as is regarded as a transparent approach. For those organizations that comply with the said triple approach, improve their organization flow of information between the service provider and the receiving the service. This approach also helps the organization to be competitive since we are leaving in a competitive world. Following the triple approach, the organization also benefit from prudent financial management as since it improves on ordering process, audit is done to allow transparency and good security measures as it does its operations (Nollet et al., 2005).

Management of inventory practices and their impact on the implementation of public procurement practices in an organization

Inventory management has been defined as all the activities involved in developing and managing the inventory levels of raw materials, semi-finished materials and finished good so that adequate supplies are available and the costs of over or under stocks are low (Kotler, 2012). It includes activities of forecasting and product replenishment.

Chong and Ooi (2008) contend that a well-organized and implemented procurement plan results in lower inventories, better customer service, and lower costs. Carr and Smeltzer (1999) investigated how organisations with strategic sourcing may maintain long-term relationships. Green buying practises will assure high-quality, ecologically friendly items, with a focus on customer happiness. Ethical procurement improves accountability, consistency, and competitive supply, all of which have a beneficial impact on procurement performance indicators.

According to Coleman (2000), inventory management refers to a science-based art of ensuring that just enough inventory stock is held by an organization to meet demand. He adds that inventory is the availability of any stock or resources used in an organization, and an inventory system is the set of policies that controls and monitors inventory level and determines what level should be maintained, how large orders should be made and when stock should be replenished. Miller (2010) distinguishes the term 'inventory control' as the supervision of the storage, supply and accessibility of items to ensure an adequate supply without excessive oversupply. He states that inventory control means availability of materials whenever and wherever required by stocking adequate number and kind of stocks. The sum total of those related activities essential for the procurement, storage, sales, disposal or use of material can be referred to as inventory management. Inventory managers have to stock-up when required and utilize available storage

space resourcefully, so that available storage space is not exceeded. Maintaining accountability of inventory assets is their responsibility (Coleman, 2000; Miller, 2010).

It is further argued that inventory management determines when to order products, how much to order and the most effective source of supply for each item in the warehouse. This ensures that distributors have the right quantity of the right item in the right location at the right time (Godana & Ngugi, 2014). The overt salience of inventory control is that it serves to regulate the inventory that is already in a distributor's warehouse. This includes knowing what products are being stocked and how much of a particular item is available (Pal, Mahapatra & Samanta, 2015). Inventories are essential for keeping the production wheels moving, keep the market going and the distribution system intact. They serve as key drivers for production and distribution systems of organizations (Masudin, Kamara, Zulfikarijah & Dewi, 2018). Historically, inventory management globally has often meant too much inventory and too little management or too little inventory and too much management (Godana & Ngugi, 2014). It has been observed that inventory constitutes 30% of the organization invested capital. In any manufacturing industry, nearly 60% to 70% of the total funds employed are tied up in Current Assets, of which Inventory is the most significant component (Burt, Dobler & Starling, 2003). Poor inventory management affect sales, customer services and revenue, which negatively impact an organization's performance. Maintaining accurate records of inventory improves customer service by providing knowledge of customers' demands; improves organization's productivity by ensuring that materials are available when needed and maximizes revenue by avoiding holding excess inventory that will eventually end up being written off (Burt et al., 2003; Godana & Ngugi, 2014; Masudin et al., 2018).

In the light of the observation that inventory management serves, among other functions, to help an organization maintain sufficient stock level to meet demands of customers (Coleman, 2000), it is advisable that managers responsible for inventory should focus on satisfying customers' needs and ensuring that costs associated with inventory are maintained at a lowest possible level (Kitheka & Chogo, 2019). Willy and Njeru (2014) investigated the influence of procurement portfolio management on procurement performance. The study found out that there existed a strong relationship between proper management of procurement portfolio and procurement performance, in that the presence of a procurement portfolio positively affects procurement performance in institutions.

Mubugi and Lutego (2022) carried out a study to determine the effect of inventory control management systems on organization performance in Tanzania manufacturing industry: a case study of food and beverage manufacturing company in Mwanza City. The specific objectives of the study were to: determine the types and purposes of inventory control management practices followed ascertain the influence of inventory control management practices on organizational performance and determine how technology adopted in operationalization of inventory control management practices affect organization performance. In order to accomplish the objectives, qualitative approach method was adopted. Using purposive sampling, five participants in the inventory and production department were selected and interviewed. Data was analysed using content analysis techniques with the aid of Nvivo Qualitative Analysis software. Other data was collected from documentary review company and industry published reports. The findings of the study revealed that the food and beverage manufacturing company had evidence of different types of inventories which included raw materials, work-in-progress and finished goods managed under FIFO system for cost reduction and production efficiency. It was also evident that the company carried inventory control management using perpetual inventory system done on periodic basis and inventory system is combined with a computerized database of inventory quantities at various locations for up-dating in real time by store and warehouse using barcode scanners. It was also revealed that inventory control management system using principles of Economic order quantity [EOQ] affects organizational performance in terms of cost reduction, production efficiency, flexibility and profitability. The study recommends an implementation of new practices/models such as Vendor Managed Inventory (VMI) in the company's inventory control management.

Mathias and Owuor (2015) collaborated in a study on implications of use of viable inventory management systems in procurement. Particularly, the study sought to critically analyse inventory management system as a determinant for performance of a grain company known as Grain Bulk Limited. It sought to establish effects of inventory management system on organizational performance. Specifically, it evaluated effects of inventory; control, speed, cost and accountability on organization performance. Having not yet adopted inventory management systems, organizations face stock out cost, which results into great loss. This study developed research questions such as what are the effects of inventory; control, speed, cost and accountability on organization performance. The study adopted a descriptive research design which ascertained

and described characteristics of the variable of interest in a situation. The target population for this study was 672 workers with a size sample of 100. The study used semi-structured questionnaires with both closed and open end. The filled-in and returned questionnaires were coded and entered into a Statistical Package for Social Sciences version 22.0. Descriptive statistics such as means, standard deviations as well as regressions analysis was done to establish relationships between the variables of the study and organizational performance. The findings revealed that inventory management system is positively related and is significant for organizational performance in Grain Bulk Handlers Limited. Three of the four attributes of inventory management system were found to be positively related to organizational performance. The researcher thus recommended that inventory management should be held strategically to boost organizational performance in Grain Bulk Handlers Limited. Matto (2017) described the level of compliance with procurement regulatory (PPA and its regulations) by demonstrating how failing to fulfil set procurement guidelines results in ineffective use of public resources and increasing multi-practice. According to the study, the major challenges that influence procurement compliance are a lack of transparency, poor supervision, insufficient tender advertisement, and misunderstanding between contract parties (contractors and consulting engineers) in certifying cost escalation and approving substandard works. This means that contract modifications and cost escalation contribute to procurement compliance failure in the purchase of works.

Similarly, Matto (2017) investigated the problems, compliance, and relevance of Tanzanian procurement changes. To draw preferences, the study employed published data and a documentary evaluation. Since the passage of the PPA and its rules, the government of the United Republic of Tanzania (URT) has achieved transparency, economy, efficiency, fairness, and value for money. In general, the procurement regulatory compliance level has improved on an annual basis as a result of the oversight bodies and the Public Procurement Regulatory Authority's (PPRA) competence to administer, oversee, and monitor various procurement procedures. The study did not consider politicians' comments as a supporter of the review.

Amon (2019) embarked on a study in Kampala, Uganda, which was intended to examine the impact of inventory control systems on organizational performance with the case study of Century Bottling Company. The objectives of the study were: to explore the various concepts and systems of inventory control; to establish the relationship between inventory control and

organizational performance; and, to establish challenges to inventory control in Century Bottling Company, Kampala. The review of the literature revealed various inventory control systems, the relationship between inventory control and organizational performance and a number of challenges facing inventory control. The literature was reviewed in accordance to the stated objectives. In order to achieve the objectives, both qualitative and quantitative methods were used in this study. The study used probability sampling and most specifically stratified sampling method. Data was got from both primary and secondary sources. Primary data was collected using questionnaires that were administered to a sample size of 97 staff of Century Bottling Company, Kampala. Interviews were also carried out by the researcher on 3 heads of departments and some respondents. Secondary data was gathered from; publications, internet, and unpublished documents. Data was analysed and presented both in tables and graphical forms. The findings of the study revealed that, Century Bottling Company, Kampala had evidence of types of inventories such as raw materials, work on progress and finished goods. It was also evident that Century Bottling Company, Kampala carried out inventory control. It also asserted by the findings that inventory control and organizational performance had a relation and the earlier impacted on the latter. However, the findings reported that although Century Bottling Company, Kampala had inventory control, there was no system of monitoring and supervision. The finding also highlighted inadequate inventory in the Century Bottling Company, Kampala, lack of use of modern systems and technology. The findings finally revealed a number of challenges faced by inventory control in Century Bottling Company, Kampala such as; delay in supply of inventory, under stocking, use of obsolete techniques, use of poor technology, theft of inventory and high inventory control costs among other.

Agu, Ozioma and Nnate (2016) embarked on a study to examine the effects of inventory management on the performance of selected manufacturing firm in Nigeria. The study sought to ascertain the extent to which inventory control affects the productivity of the firms; to determine the nature of the relationship between demand management and customer satisfaction; and, to determine the effect of just – in- time on the growth of the manufacturing firms. The study had a population size of 996, out of which a sample size of 285 was realized using Taro Yemini's formula at 5% error tolerance and 95% level of confidence. Primary data was collected using a questionnaire and a guided interview. Out of 285 copies of the questionnaire that were distributed,

270 copies were returned and only 15 were not returned. The study adopted a descriptive survey research design. The hypotheses were tested using Pearson product moment correlation coefficient and simple linear regression statistical tools. The findings of this study indicated that inventory control significantly affects productivity of selected manufacturing firms ($r = 0.849$; $t = 27.726$; $F = 768.754$; $p < 0.05$). Furthermore, it was revealed that there is a positive relationship between demand management and customer satisfaction. ($r = .799$, $P < 0.05$). It was therefore concluded from these findings that inventory management is essential in the operation of any business. In the light of the observation that inventory is an important asset on the balance sheet of companies as the strategy for reducing their investment in fixed assets, the study recommended that organizations should train their personnel in the area of inventory control management to give them the capacity to run their activities effectively and carry out inventory management activities.

Koin, Cheruiyot and Mwangangi (2014) conducted a study to determine the effects of inventory management on the performance of an organization. The study employed a descriptive research design. Data was collected using a questionnaire on purposively sampled 56 employees in the supply chain department. Data was then analysed using descriptive statistics using a statistical package for analysis (SPSS). The findings of the study indicate that inventory management system and supplier relation affect the supply chain effectiveness in the manufacturing sector to a great extent.

Musau, Namusonge, Makokha and Ngeno (2017) carried out a study to analyse the effect of inventory management on supply chain performance in terms of profitability, reliability, cost, responsiveness, flexibility and asset management efficiency of textile manufacturing firms in Kenya. The study was guided by the inventory management theory. The study adopted the convergent parallel mixed methods design. The study targeted a total of 196 respondents drawn from employees of procurement departments and departmental heads of respective 15 textile manufacturing industries operating in Nairobi County. The sample size was therefore 139 respondents. Stratified and simple random sampling methods were used to select employees of procurement departments from their respective textile firms. Questionnaires and interview schedules were used to gather the data from primary sources. The study applied the use of both qualitative and quantitative data which was analysed using statistical package for social sciences (SPSS Version 22). Inferential statistics using hierarchical multiple regression and Correlation

analysis was applied to test the relationship between the variable and formulated hypothesis. The final analysed results were presented using tables, graphs and charts. The study established that textile manufacturing firms in Kenya have adoption of inventory management as a factor of supply chain influencing performance. The study concludes that inventory management possess the potential of positively influencing performance of Textile firms in and therefore recognizes the importance of inventory management in the supply chain and have put clear mechanisms in place and invested in current material flow systems to oversee smooth and transparent material flow that can be tracked along a supply chain.

Ogbo, Onekanma and Wilfred (2014) carried out a study on the effect of the effective system of inventory management on organization performance in the Seven-up Bottling Company in Nigeria. The researchers were motivated to embark on this study in order to bring to fore the importance of an effective inventory control system on organizational performance as it relates to the bottling company. A total of eighty-three respondents constituted the sample for the study. Four research questions and Four hypotheses were generated and tested at 10% (that is 0.10) significant level using descriptive statistics and a non-parametric test. The result of the analysis showed that flexibility in inventory control management is an important approach for achieving organizational performance. The study revealed that proper inventory control management had three main benefits, which included ease of storage and retrieval of material, improvement on sales effectiveness and reduction in operational cost. The study also found that there is a relationship between operational feasibility, the utility of inventory control management in the customer related issues of the organization and cost effectiveness technique in a bid to enhance the return on investment in the organization. Respective of the conclusion drawn from this study that effective inventory control management is one of the crucial areas that management of any organization should consider building capacity in, the study recommended that organizations should consider adopting effective modern inventory management techniques and embrace inventory keeping methods that best suit their operations.

In Canada, Brunel (2017) examined the economic status of Canadian hospitals, and endeavoured to discover whether a computer-based inventory management system, incorporating short-term statistical demand forecasting, would be feasible and advantageous. Data collected was subjected to a variety of simple forecasting methods, including moving averages, exponentially

smoothed averages and the Box-Jenkins method. It was concluded that either of two methods would be appropriate: moving averages and double exponential smoothing. The latter, when combined with adaptive control through tracking signals, is easily incorporated within the total inventory system because it required only a short run of data, tracks trend satisfactorily, and demands little operator intervention.

Belfiore (2019) investigated the efficient inventory control tool that can ensure an optimized spare parts inventory management in Netherlands. Interviews conducted with company's managers and employees showed that current inventory management was inefficient and costly. Semi-structured interviews based on the literature and on the problem, identification was conducted in the Netherlands, to the managers and employees of Drake & Farrell. The results of the interviews revealed that Drake and Farrell's inventory management was inefficient. The main problem was caused by the high costs incurred by the company due to the high stock levels to be maintained. The company adopted a single replacement policy of all spare parts, often having many stocks that were subject to obsolescence. This revealed the lack of a classification tool that allowed to distinguish spare parts into different classes and to adopt different reordering policies based on the class to which they belong.

Kamau and Assumpta (2015) conducted research on the impact of inventory management on organisational competitiveness, with a focus on Safaricom Ltd Kenya. The study's particular objectives were to investigate the effects of inventory shrinkage, inventory investment, and inventory turnover on Safaricom Ltd's competitiveness. This study employed a descriptive research design. Safaricom Kenya Ltd top people in finance, customer care, supply, administration, and commercial (sales and marketing) were the target population. Personnel in those departments were chosen for the study because they are better suited to answer questions on inventory control and the company's competitiveness. The target respondents included the 103 management staffs from the Company's Head Offices in Nairobi. Stratified random sampling was applied where a sample was calculated using Fishers Formula. This generated a sample of 80 respondents. The study collected primary data using a questionnaire with both open ended and closed ended questions which were administered using a drop-and-pick-later method. The quantitative data that was obtained from the questionnaires was coded and keyed into a statistical package of social science (SPSS) analysis software. Both descriptive and inferential statistics were utilized to

analyse the results interpreted in terms of percentages and means score and presented in tables and figures. The study found that inventory shrinkage, inventory investment, and inventory turnover affect the competitiveness of Safaricom Ltd. The study concludes that inventory management practices are very vital to the competitiveness of organizations.

Manguday (2018) examined the assessment of inventory management practices of Habesha Steel Mills PLC in Ethiopia. The study applied a descriptive survey design and mixed research approach. The target population were employees of Habesha Steel Mills PLC. And the total number of respondents in this study was 127. Primary data was gathered using semi structured questionnaires and interview. A statistical package for the social sciences version 23 was applied for the purpose of processing and analysing the results. The study result revealed that the information technology and internal control system of Habesha Steel Mills PLC was highly effective in managing the inventory level and meeting the customer demands. However, further improvement was recommended in areas like inventory physical counting inspection, handling of overstocking and under stocking of inventories, data accuracy and real time report preparation. Moreover, the Company mainly used ABC inventory techniques to determine the materials demand of the customers. More importantly, lack of management support, insufficient qualified staffs and shortage of training are the major problems for assessment of inventory management practices. Based on the findings, it was concluded that the inventory management practice at Habesha Steel Mills PLC has a contribution in improving the company's overall accomplishments in terms of service delivery, reducing damages and wastages, customer service, supplier relationship, inventory planning and scheduling and management of information reports.

A study by Anichebe and Agu (2013) set out to identify effects of inventory management on organizational effectiveness in selected organizations in Nigeria. Specifically, the study was carried out to assess the impact of proper inventory management on organizational performances in Yemenite, Hardis and Dromedas, and the Nigeria Bottling Company all in Enugu, Enugu State. Descriptive research method, especially survey, and case study were employed in carrying out the study. The population of the study was six hundred and fifty-eight (658). A sample size of two hundred and forty-eight (248) was derived using the Taro Yamane formula for sample size determination from a finite population. Data was collected using a questionnaire, oral interviews and observations, and from books and journals. Data was presented in tables and analysed using

simple percentages. Pearson product moment correlation coefficient and linear regression were used in the hypotheses testing. From the analyses, it was discovered that irrespective of the fact that the organizations studied painted the picture that they were applying the tenets of good inventory management, they from time to time run into the problems of inventory inadequacy. This consequently affected their production, leading to the scarcity of one brand of their products or the other, thereby affecting their profitability and consequential effectiveness negatively. The Findings indicate that there is a significant relationship between good inventory management and organizational effectiveness. Inventory management has a significant effect on organizational productivity. There is a highly positive correlation between good inventory management and organizational profitability. The study concluded that Inventory Management is very vital to the success and growth of organizations. The entire profitability of an organization is tied to the volume of products sold which has a direct relationship with the quality of the product. Against this background the study recommended that organizations should diversify their inventory system to suit specific needs of production, and that management should closely monitor and manipulate their inventory system to maintain production consistency for organizational profitability and effectiveness.

Kitheka and Chogo (2019) conducted a research study to determine the effect of inventory management techniques on procurement performance. Specially, the study focused on determining the effect of ABC technique, Vender Managed inventory technique and periodic review approach on procurement performance. Three theories were reviewed to guide the study, namely, Economic Order Quantity Model, Network Theory and Resource Dependency Theory. These theories helped to illustrate the relationship between inventory control techniques and procurement performance. The study found out that ABC technique, Vendor Managed inventory technique and periodic review approach significantly affect procurement performance.

A number of studies have been conducted to explore the effects of introducing ICT softwares in the field of procurement. One of the most researched on software is the Enterprise Resource Planning (ERP). A study by Lewis and Roehrich (2009) revealed that Information Communication Technology is one of the largest drivers of change in any industry such that procurement processes that make use of information technology are able to shorten the time taken to share and process information. Among other benefits, the study indicated that use of information

technology in procurement enables the coordination of business processes both within and outside the organization. Some of the aspects of procurement that are simplified with the advent of procurement technologies include; electronic ordering, online catalogue and online payment. Furthermore, the study indicated that electronic procurement allows ordering and approval of all transactions in a shorter time span compared to manual requisitions, and that real time communications also enable faster transactions and saves on time. The study concluded that these attributes of electronic procurement eventually result in an enhanced organizational performance, which in the long run contribute significantly towards the improvement of the productivity of an organisation.

Su and Yang (2014) carried out a study on a Taiwanese industry that manufactures electronics to find out if at all the ERP system has any impact on the performance of the procurement function. Data was collected using guided interviews on purposively sampled users, IT technicians, engineers, production planners, supervisors, managers and consultants. The study confirmed that ERP systems benefitted the operational, managerial, and strategic competencies of a supply chain and led to a robust procurement function.

Harping on the same note, a separate study conducted by Bose, Pal and Ye (2013) to compare the management of inventory between manufacturing companies that used the ERP system with those that did not use any procurement software at all revealed that manufacturing firms were able to get real time inventory information update, better picking activities, and establishment of effective collaboration with vendors and customers, when they installed ERP systems. Similarly, Wangui (2014) set out to analyse the procurement performance at Kenafric Industries, one of the leading manufacturers of footwear and confectionery products. The firm made use of the Enterprise Resource Planning management tool. The study showed a significant improvement on the performance of the procurement function of the company after the ERP had been introduced. The researcher concluded that the improvement in the performance of the procurement efficiency resulted from the influence of the ERP system.

Edwin and Florence (2015) embarked on a study to examine the effect of inventory management on profitability of cement manufacturing companies in Kenya. The study was motivated by the milestone contribution of the Cement manufacturing firms to the economy of Kenya. A cross-sectional data from 1999 to 2014 was gathered for the analysis of the annual

reports for the three sampled firms listed at Nairobi Securities Exchange (NSE). The ordinary least squares (OLS) stated in the form of multiple regression models was applied in the data analysis to establish the relationship between inventory management and firm's profitability. The variables used include inventory turnover, inventory conversion period, Inventory levels, storage cost, size of firm, gross profit margin, return on assets and growth of the firm. The results provided a negative relationship between inventory turnover, inventory conversion period and storage cost with the profitability of the company. In addition, inventory level was found to be directly related to firm's size and storage cost. The study recommends that the Cement manufacturing firms in Kenya should strive to ensure that the right stock is kept in their warehouses to hedge against excessive holding cost and stock-outs.

A study by Kipkemoi (2017) attributes the improvement in the efficiency of the procurement function observed across corporate entities and non-profit organizations with the introduction of ERP system to the fact that ERP enhances the need to purchase the products according to the detailed specifications and required quality standards, which in turn increases the efficiency of the supply chain by reducing costs incurred from unmet specifications and the return or use of goods of poor quality. Furthermore, the study observed that there is an increase in accountability and transparency in procurement using sound integrated procurement systems which greatly improves the movement of information from source to end user, which eventually leads to enhanced organizational performance.

In Tanzania, Kaudunde (2013) assessed the effectiveness of inventory control system in Kilwa District Council. The sample for the study constituted forty (40) members of staff from Kilwa District Council Headquarters. These officials were interviewed in order to get an empirical data on the current inventory control practice in the public sector. The study revealed that 65 percent of the respondents agreed that the council received services or products at the right time, orders were received complete, were damage free, were filled accurately, and were billed accurately. This implies that the inventory control system had been successful. Based on reliability of inventory management system at Kilwa District council, the results show that during 2011/2012 financial year, there was one old facility, one balance and no new facility. During 2012/2013 financial year there were two new facilities, no old facility, and two balance facilities. The study further found that, during 2013/2014 financial year there were two old facilities, two new facilities

and four balance facilities. This implies that inventory control system in Kilwa District Council has become reliable. The study further revealed that, Kilwa District Council has improved all inventory control systems through operating activities at a minimum cost. The techniques used in Kilwa District Council to reduce cost in inventory control system included base cycle stocks on economics, reduced order transaction costs, reduced acquisition lead times, implemented joint procurement for purchased products, minimized purchase, and maintained accurate inventory balances.

Maina (2018) embarked on a research project that sought to establish the effects of e-procurement practices on performance of inventory management in manufacturing firms in Nairobi County of Kenya. This aim was broken down into more specific objectives which included: to establish the effect of e-sourcing on performance of inventory management in manufacturing firms in Nairobi County in Kenya; to examine the effect of digital buyer-supplier collaboration on performance of inventory management in manufacturing firms in Nairobi County in Kenya; to assess the effect of inventory control on performance of inventory management in manufacturing firms in Nairobi County in Kenya; and finally, to establish the effect of electronic data transmission on performance of inventory management in manufacturing firms in Nairobi County in Kenya. The study used descriptive research design. The target sample for this study was 278 and the respondents were 208. The study used stratified random sampling method to select companies from the various subsectors of the manufacturing sector in Nairobi County, Kenya. A multiple regression analysis model was used to measure the relationship between e-Procurement practices and performance of inventory performance. The key findings of the study are that e-sourcing, inventory control and electronic data transmission has significant influence on performance of inventory management in manufacturing firm in Nairobi County, Kenya. Basing on this observation, the study made the recommendation that manufacturing firms in Kenya should invest in e-procurement practices considering its impact on improving the quality and performance of inventory management. The study concluded that e-procurement practices influence performance of inventory management in manufacturing firms in Nairobi County, Kenya. E-sourcing and Electronic Data Transmission has significant influence on performance of inventory management in manufacturing firms in Nairobi County, Kenya. More companies in manufacturing as well as other sectors in Kenya should strive to invest in e-procurement to enhance their

performance of inventory management. In the light of these observations, the study recommends that other key sectors in the economy, for example the government sector, should adopt e-procurement practices to increase transparency in the procurement processes and enhance the accuracy of the stock as well as reduce pilferage of the stocks and reduce the lead times for overall better performance of the sector.

Tatsis, Mena and Whicker, (2016) conducted a study on E-procurement in the Greek food and drink industry. They established that e-procurement involves Materials Requirements Planning (MRP) and Manufacturing Resource Planning (MRP II) systems, are expected to provide seamless integration of processes across functional areas with improved workflow, standardization of various business practices, improved order management, accurate accounting of inventory, and better supply chain management.

Masudin, Kamara, Zulfikarijah and Dewi (2018) conducted a research study to examine inventory management and procurement practices and their impact on organizational performance. The performance measures that were examined in their research study were financial performance and customer satisfaction. The study was inspired by the observation that to remain competitive among other competitors in today's market, organizations have been compelled to lower their costs, increase revenue while maintaining highest quality of their products and services that are delivered to their customers. Furthermore, it was inspired by the knowledge obtained from findings of preceding studies which revealed that procurement management serves as an important strategy for organizations to remain competitive for both present and future. In this competitive business environment, costs control serves as an important instrument to remain competitive in the market. In such an environment, inventory management ensures control over customers' demands thereby resulting to customer satisfaction and increase financial performance. The study collected and analysed secondary data by gathering information relating to inventory management and procurement practices from different articles, journals and books of various researchers. The results of this study confirmed; first, that automated procurement practice like e-product enhance organizational performance; second, that implementation of world class procurement practices also enhance organizational performance; and third, that inventory management enhances organizational performance.

Koumanakos (2008) conducted a survey in Greece manufacturing firms dealing with food, textile and chemical for a period of two years to determine the impact of inventory management on organization performance. The study revealed that lean inventory management enables the organization to improve its financial performance. It was further discovered that if an organization holds enough inventory at its possessions, the organization will receive lower rate of return.

To determine the impact of an effective system of inventory management on organizational performance, Ogbo and Ukpere (2014) conducted a survey in Nigeria on a Seven-up Bottling Company. The results obtained from their investigation indicated that a flexible inventory control management is a vital strategy to attain the organizational performance. The study indicated that this can be achieved through easy storage retrieval of materials, boost sales effectiveness and minimises operational costs. The study further revealed that there exists a link between flexible operation and the extent to which an organization implements inventory management to customers and adopts low-cost approaches that enhance the return on investment to the organization.

In their study conducted on manufacturing organizations to confirm how inventory control impact productivity, evaluate the importance of the relationship between demand management and customer satisfaction and explore the impact of just-in time, Agu, Obi-Anike and Nnate (2016) discovered that inventory control improves organization's productivity. The study further revealed that there is a co-existence between demand management and customer satisfaction, and the just-in time improves growth in organization. However, the study also discovered that there was an acute shortage of technical personnel and experts in the field of procurement to operate the e-procurement system. To this effect, it was recommended that organizations should consider organizing a series of in-service training to its human resources involved in the procurement process to equip them with the skills and technical know-how prerequisite for running the system. It was further proposed that organizations should make deliberate efforts to capacitate their employees with knowledge on inventory control management to enable them better execute inventory management activities. The study further suggested that the best strategy to be adopted by companies in making decisions to acquire goods and services should be the best procurement practices such as the establishment of supplier relationship, working as a team to procurement and better utilization of technology or e-procurement. Mwangi (2017) in his study on assessment of determinants of procurement opportunities regulations compliance. The study adopted a mixed

design that allowed the researcher to use both qualitative and quantitative data collection methods. The semi structured questionnaire and interview guide used to collect data. The study findings showed that contract management and criteria for prequalification has negative impact to compliance level of procurement opportunities regulations while internal processes of organization and supplier selection procedures had positive impact to compliance level of procurement opportunities regulations. This implies that the lower level of compliance is affected by availability of highest criteria prior to tendering process with the higher level of compliance of procurement opportunities and regulations resulted from proper selection processes.

Similarly, study on determinants of procurement performance by (Ngugi, 2013). One of the study specific objectives was to assess the consequence of legal framework on procurement performance. The study used a descriptive design. Qualitative and quantitative data were collected using questionnaires and unstructured observation. The data analysed and presented by using descriptive and inferential statistical analysis. Based on specific objective of the study, the findings revealed that procurement performance of the organization affected by legal framework to greater extent. This implies that effective compliance with legal framework improve procurement performance, this evidenced by 0.959 correlation coefficient between legal framework and procurement performance.

In most of public sectors procurement practitioners have only technical procurement skills while most of them lack of knowledge and awareness of legal framework related to procurement which results to poor regulatory compliance Hunja (2003) as cited by Agbesi (2009). It is argued that it is very difficult to find lawyer who is both technical and knowledgeable in procurement relative matters. So, the lack of knowledge and understanding of procurement legal framework has been identified as a key challenge practically effect regulatory compliance not only in public sectors but also stakeholders.

The level of regulatory compliance by PEs and stakeholders is associated with different factors that influence public procurement regulatory compliance such as nature of procurement, budget, ICT and management support. Nge'no (2014) explained that unfamiliarity with procurement regulatory framework such as guidelines affect the level of compliance or non-compliance behaviour. Inadequate familiarity with regulatory framework has been listed as a critical challenge resulting procurement reforms in most of the developing countries. Stakeholders

such as contractors or suppliers possess wrong perception based on regulatory framework objectives that effect the extent of compliance during their participation in tendering process. This study doesn't approve that familiarity with regulatory framework influencing the extent of compliance with regulatory framework but the study determines the extent of regulatory compliance in public sectors with regard to the factors influencing procurement regulatory compliance namely; nature of procurement, budget, ICT, support from management and sanctions. Increased penalties such as time of imprisonment for officials who go beyond legal requirement as a result of non-compliance with regulatory framework led to higher extent of regulatory compliance.

Another study conducted to determine the relationship between observance of procurement best practices and overall performance of the organisation was carried out by Karanja and Kiarie (2015) in Kenya on Guarantee Trust Bank Limited, Kenya to determine the impact of procurement practices on organization performance in the private sector in Kenya. Results obtained from this study indicated that e-procurement and automated procurement practices have a visibly great contribution towards improving organizational performance, and proper inventory management in private sector leads to improved organizational performance.

Chang and Wong (2010) carried out a study to establish the relationship between the willingness of an organization to implement e-procurement for its operations in the marketplace and the performance of the said organization. The assumption was that if an organization demonstrates high willingness to utilize an e-procurement system, the said organization will adhere to almost all the required guidelines and prerequisites when using the procurement software. The moderate variable used in the relationship between e-procurement adoption and e-marketplace participation was trust. Findings of this study indicated that organizations that implement e-procurement are more capable to participate in the e-market, and eventually, this led to an improvement of the performance of an organization. It was further established in this research project that trust has moderate effect on the willingness of a firm to adopt e-procurement when an organization considers participating in the e-market place.

A research study which was carried out by Panigrahi (2013) on twenty cement companies in India with a view to determining the impact of inventory management on financial performance revealed a very strong relationship between proper inventory management and financial

performance on the part of a company. Findings of the study indicated that the duration used in converting inventory into cash had inverse link with profitability. Basing on the findings obtained, the study concluded that inventory management is an important mechanism that ensures control in an organization financial statement. When inventories are properly managed, they productively produce capital inventory management impact on organization financial performance either directly or indirectly.

Several scholars have carried out studies to determine whether inventory management has a bearing on meeting customer satisfaction, which has been defined as the customers' perception about the organization activities that meet or surpass their expectation on products and services in a given period and is demonstrated, in part, by customers' loyalty to a company characterized by product repurchase (Eckert, 2007).

Thogori and Gathenya (2014) conducted a research study on Delomonte Company in Kenya to determine the role on inventory management on customer satisfaction among manufacturing firms in Kenya. Their result indicated that the long delay on goods ordered reduced customer satisfaction. It was further noted that the company did not have the capability to determine the exact quantity of stocks to maintain to be able to meet the demand; consequently, it was observed that the company encountered inventory shortage, which led to profit as well as customer loss. The following conclusions were made from the findings. First, it was discovered that improved inventory management leads to improved customer satisfaction. Second, the study concluded that production of items with correct specification and on-time delivery can be used as instruments to determine customer satisfaction. Furthermore, it was concluded that the absence of real time inventory information on customer demands can result in inaccurate forecast which development can lead to late, insufficient and inconsistent deliveries of goods, and eventually cause customer dissatisfaction. The final, and perhaps the overarching, conclusion drawn from the study was that proper inventory management plays crucial role in enhancing customer satisfaction in an organization.

An akin study was carried out by Eckert (2007) who sought to investigate the role of inventory management in improving customer satisfaction. Emphasis in this study was placed on retailers. The result of his study indicated that improved inventory management leads to increase customer satisfaction and supplier partnership. Furthermore, it was revealed that capacity building

through training staff of an organization in the areas of technology and used in inventory management increases performance of the staff, which eventually leads to customer satisfaction.

From the literature reviewed on the role of proper management of the inventory and its effects on procurement practices, it can be concluded that inventory management plays a very significant role in enabling an organization to improve its performance.

In the case of manufacturing companies, Masudin et al. (2018) assert that inventory management ensures that customers receive their products on time thereby improving customer satisfaction. This has been enhanced with the advancement in technology in which case the internet in addition to other information technologies has speeded up communication between supplier and buyers on transportation, inventory management and production schedule which finally increase the level of customer satisfaction (Lancioni, Smith, & Oliva, 2000). Masudin et al. (2018) add that efficient inventory management and strategic procurement practices are the most important tools that enhance customer satisfaction. Thus, when customers are satisfied with the products or services of a company, they become loyal to the company and recommend the products and services to other customers thereby increase the customer base of the company and leads to increase in profitability. They maintain that the degree of customer satisfaction determines profitability of any company; higher the satisfaction leads to increase in profitability of the company. Ogbo and Ukpere (2014) sum it up well from the viewpoint of corporate organizations in their assertion that the biggest and most physical investment of any organization is its inventory, hence proper inventory management strategies are required to assist in increasing revenue and ensure continuity of the business. Inventory control ensures that items are available to customers by coordinating the buying, production, and distribution activities to meet market needs.

Level of training acquired by procurement staff on implementation of public procurement practices

Ramkumar (2015) recognises the salience of attainment of reasonable training in procurement among procurement officers, which includes in-service refresher courses to acquaint officers with new ways and technologies for carrying out procurement activities. This is a necessity considering that technology has been responsible for the efficiency and effectiveness in most of the activities and competition rates in the world of business in the present day and age. In a quest to address the challenges facing the procurement field and then improve organizational efficiency

and productivity, the business world has resorted to adopting more creative ways for ensuring that the human resource in the procurement department have the desired technical know-how to operate the new technologies to help steer the organization towards the intended success.

Harping on the same string, Wanjiru and Chege (2020) believe that public procurement plays a leading role in the attainment of political, economic and social goals of a country through provision of goods, works and services. However, they observe that material quality defects, compromised order cycle time, lead time and poor contract management among others, are rampant. To this effect, Wanjiru and Chege (2020) embarked on a study which was intended to investigate the effect of employee skills on public procurement performance at National Youth Service, Kenya. To achieve its objective, the study adopted a descriptive research design using quantitative approach and a census method. A closed-ended questionnaire was used to collect primary data using drop and pick tactic. The data was analysed using descriptive and inferential statistics of Statistical Package for Social Sciences (SPSS version 21). The findings were presented in frequencies; percentages, mean and standard deviation were thematically presented in tables and figures. The study established that employee skills had a positive significant effect on public procurement performance. The study concluded that staff possess relevant procurement functionality skills, there is cross-function teamwork among staff, high level of integrity is embraced by employees, confidentiality of classified matters, this was to avoid conflict of interest, personnel had required procurement knowledge and employees had adequate experience in procurement processes respectively. The study recommended that in-house training and coaching be promoted to cultivate stated organization culture such as behaviour, ideas, attitudes, values, habits, beliefs, customs and language among employees.

Elijah and Athumani (2020) conducted a study in Tanzania which sought to assess the influence of staff competency on performance of Procurement Management Unit in public sectors in Tanzania, a case of Vocational Education and Training Authority (VETA) Head Office. The study assessed the experienced personnel, competent personnel and training of procurement staff on performance of procurement function at VETA head office, Dar es Salaam. The study used case study design whereby sample of 76 respondents were drawn by using Slovin's formula from the population of 120 employees. Primary and secondary data were collected by using questionnaire, interview and documentary review. Qualitative data were analysed using cases and examples while

quantitative data were analysed and presented in tables, graphs, percentages and frequency with the aid of SPSS version 16 and Microsoft excel. The findings revealed that, 97.20% of the respondents agreed that procurement performance influenced by experienced and skilled procurement personnel, but 2.80% of the respondents disagreed. Likewise, 83.40% of the respondents agreed that VETA employs competent and qualified procurement staff but, 16.6% of the respondents were neutral. On other hand, 97.20% of the respondents agreed that training of employees improves level of competency but, 2.80% disagreed. The study concluded that experience, competency and training of procurement staff have a significant effect on performance of procurement function at VETA. In this regard, performance of PMU at VETA depends on combination of these three factors. Performance in procurement function in this study was regarded in terms of timely delivery, quality goods and service and delivery of goods in right quantity. It is recommended that VETA should continue to provide training to not only to PMU staff but to other organs like Tender Board, User departments, accounting officer etc to enhance competency among players. Further recommended that, VETA should employ competent and professional employees in procurement section since competency has direct effect on performance.

Mital et al. (2014) adds that technology has put most of the organizations under pressure to ensure that they improve their operations, utilization of resources, development of their products, transparency and increasing their efficiency. He also notes that technology has also forced most of the companies to adopt to virtual e-procurement and supply chain philosophy from the traditional ways due to emerging of internet and Information, Communication and Technology (ICT) that has transformed most of the companies to running their activities through automation. Some of the benefits of e-procurement are; procurement cycles are much shorter, there is a reduction of inventory levels, it leads to a reduction of transaction costs, there is a reduction in the need for staff, and that there is an increase in transparency and an improvement in communication between suppliers and buyers (Mital, Pani & Ramesh, 2014).

Shale (2015) further notes that companies that have been able to embrace e-procurement, even though it is still in its streamlining process, have experienced great profits and savings, and that embracement of e-procurement has increased the efficiency and control of organizations' procurement activities compared to the traditional methods used. In the light of these, it is obviously imperative that organizations accord their procurement officers the opportunity to

receive adequate training in procurement ICTs to ascertain their relevance in the field (Nurmandi & Kim, 2015).

In USA, Neupane, Soar, Vaidya, and Yong (2012) analysed the risk factors of corruption in the government procurement processes such as in project planning, product design and documentation, tender process, contract awards, and accounting and auditing. Neupane et al. (2012) also assessed different cases of various developing countries and emerging economies with a specific focus on the potential of public e-procurement to transparency and accountability. The results indicated that anti-corruption capabilities of public e-procurement, particularly the automation and audit trail capabilities can potentially increase the transparency and accountability of the government procurement process.

Research has shown that proper qualifications of staff in the procurement department assists in the drafting of correct specifications, this in turn will ensure the organization receives the better-quality products (Lysons & Gillingham, 2003), and that eventually this has helped to improve operational efficiency and inspire labour productivity (Apiyo & Mburu, 2014; Kipkemoi, 2017). It is believed that procurement officers with the minimum required qualifications will have a better understanding of best practices in procurement to follow, and skills and competences to demonstrate when running their affairs. This includes skills and competences to effectively use procurement ICT equipment, systems and software for the benefit of the organization. Furthermore, they will have the knowledge of the ethical requirements of the procurement profession, and hence will be in a good position to observe the code of ethics and conduct when carrying out all procurement transactions. These will lead to an ameliorated overall performance on part of the organization (Lema, 2013; Apiyo & Mburu, 2014; Kipkemoi, 2017).

Another study was carried out by Turga (2019) in Ethiopia to identify factors affecting procurement performance of the International Organization for Migration. The study employed a descriptive and explanatory research design. Primary data was collected by using questionnaires targeting employees in the procurement and logistics department. The findings of this study revealed that factors emanating predominantly from staff incompetence and lack of professionalism, among others, were the main factors affecting the performance of the procurement function of the International Organization for Migration procurement. It was recommended that more and more regular trainings should be arranged to ensure that the

procurement staff are inculcated with the skills they need for the department to have a vibrant procurement function.

In view of their opinion that procurement is the nerve centre of performance in every institution, whether public or private, and that there is need therefore that institutions should develop and follow strict procurement systems, Okong'o and Muturi (2017) conducted a study in Tanzania to assess factors that affect procurement performance in public institutions in Kisii County. The study set out to examine how procurement planning and political interference affect public procurement performance at the public institutions. The study employed a descriptive research design. The target population was 214 users in procurement department and suppliers of goods and services at the public institutions in Kisii County. A survey questionnaire was developed and employed to collect data from the 54 respondents beside the secondary data that was collected. Data analysis was done using descriptive statistics such as percentages and inferential statistics, and was then presented in tables and figures. The findings of this study revealed that procurement officers at most public institutions lack the minimum skills and competences to discharge their duties effectively in the field of procurement. This was demonstrated in their inability to manage ICT facilities used in procurement and failure to develop viable procurement plans. Furthermore, the study revealed that while institutions made attempts to prepare procurement plan on an annual basis, the political class was not supportive towards the procurement systems at the said public institutions. It was recommended, therefore, that deliberate efforts should be made by respective institutions, through the National Treasury, to organize regular skills upgrading courses on public procurement to equip the human resource with essential skills and update them on innovations that are prerequisite for proper management of the procurement functions in the present day and age. The study further recommends that the procurement human resource should be allowed freedom and independence to carry out their duties with little political interference. Thus, the procurement staff should be independent in the exercise of their mandate.

Iqbal and Ahmad (2014) suggested that companies today must be fast and nimble enough to react quickly to changes in customer demand and do it with little inventory. Gone are the days when manufacturers could stockpile large quantities of raw materials; load-up the shop floor with work-in-process; and, pack warehouses with finished goods. The old ways cost too much, require too much working capital, and contribute to erratic and longer lead times. Furthermore, Iqbal and

Ahmad (2014) noted that inventory management includes a company's activities to acquire, dispose, and control of inventories that are necessary for the attainment of a company's objectives. The management of inventories concerns the flow to, within, and from the company and the balance between shortages and excesses in an uncertain environment. Besides, Iqbal and Ahmad (2014) noted that the evidence suggests that the stock market partially anticipates excess inventory situations, firms do not recover quickly from the negative effect of excess inventory, and the negative effect of excess inventory is economically and statistically significant. In this research, after implementing inventory management tools, 25% profit has been increased.

A study by Apiyo and Mburu (2014) confirms, among other facts, the view that hiring qualified and competent procurement officers and imparting skills and competences through refresher courses among human resources in the procurement department has a positive impact on the performance of an organization. In their study, they examined the factors that affect procurement planning in County Governments in Kenya a case study of Nairobi City County with an aim of making recommendations on proper procurement planning. The study aimed to establish how management support, staff competence, Information Communication Technology (ICT) tools, and budgeting procedure affect procurement planning. A census was conducted where all the 103 staff in procurement department was issued with questionnaires. Data was collected using self-administered questionnaires to collect data. The data collected was analysed using quantitative and qualitative techniques. The study concluded that, inadequate competencies of procurement staff, lack of management support, ICT tools and budgeting procedures affect procurement planning.

Frimpong (2016) examined the barriers limiting the adoption of environmentally sustainable procurement of goods at Kumasi Metropolitan Assembly (KMA). The researcher interviewed five (5) individuals identified with procurement function at KMA to collect data. The study established that environmentally sustainable procurement of goods was being practiced but faced a lot of barriers to get the full benefit of it. Procurement contracts of goods were being awarded considering the lowest evaluated bid and other considerations such as ecological elements were not included in tender evaluation. The study also found out that, the absence of administration backing was a limiting factor in the adoption of environmentally sustainable procurement of goods at KMA. Lack of knowledge about sustainable concept, the perception that sustainable goods are

expensive especially at the initial stages added to the difficulties influencing the adoption of environmentally sustainable procurement.

Lema (2013) sought to identify procedures used in preparing procurement plan and its implementation in Meru District Council in Kenya. He also set out to examine factors that affect implementation of annual procurement plan in Meru District Council and establish the effects of management on implementation of procurement plan in Meru District Council. The research methodology was designed to collect data from sixty (60) respondents through different methods such as questionnaires (open and closed ended), oral interview, internet and observation. The collected data was statistically analysed using Statistical Package for Social Science (SPSS) software version 16.0. The findings revealed that delay of fund from central government and other sources, lack of awareness on implementation of annual procurement plan, inadequate allocation of funds (insufficient budget) and lack of knowledge on the newly introduced payments system (EPICOR) stand out among crucial factors that affect the implementation of annual procurement plan.

A study by Njeru (2015) was conducted in Kenya to discover factors that affect effective implementation of procurement practices in tertiary public training institutions in Kenya. A descriptive correlation research design was adopted and the target population comprised 40 tertiary public training institutions in Kenya. Stratified random sampling technique was applied to select a sample size of 35 tertiary public training institutions. Questionnaires were used as the main data collection instruments and were pretested using a pilot study for validity and reliability. Descriptive and inferential statistics data analysis results revealed that the employed procurement policies, supplier management strategies, inventory management methods, professional training and use of ICT based systems hampered effective implementation of procurement practices in over 80% of tertiary public training institutions in Kenya. It was concluded that supplier management followed by training and then procurement policies are the major factors that mostly affect effective implementation of procurement practices tertiary public raining institutions in Kenya.

Erick (2016) held a study to establish tendering procedures influencing organizational performance at Moi Teaching and Referral Hospital, Eldoret; to determine the effects of supplier assessment on organizational performance at the Hospital; and to evaluate the effects of material control procedure and organizational performance at health facility. The study employed a case

study research design in collecting relevant information. The total population for this study were 3600 respondents with a sample size of 384. Stratified and simple random sampling techniques were employed. Questionnaires were used as the main data collection instruments. Data was analysed through descriptive statistics and later presented in frequency tables and percentages. The study adopted institutional and socio-economic theory to provide a relevance to the study. Data was collected using a questionnaire and the findings were analysed using both descriptive (frequencies and percentages) and inferential statistics (correlation analysis). The study established that there was no strong correlation between tendering, supplier assessment and organizational performance, while material planning was highly correlated with performance. This meant that through tendering and material control, the organization can achieve its objectives which will lead to organizational performance. Material planning was found to be necessary in any procurement in an organization. Since material control could be used to explain 54% influence in an organizational performance.

In Malawi, Nyasulu (2012) examined various factors that influence meaningful involvement of the procurement function on procurement processes and the enhancement of compliance levels within the public sectors. Unlike, the procurement function, which is the department comprising of professionals, procurement processes involve initiating the needs by user departments, solicitation of bids and administration of contracts to suppliers. Nyasulu (2012) focused on the importance of public procurement; the way it is perceived; its roles in the Local Government; the challenges it encounters, and how it is aligned with other functions within the Local Government. The empirical data was collected using case study research strategy. In- depth case studies were conducted at three major city councils of Blantyre, Lilongwe and Mzuzu. The empirical data that were collected was further analysed using grounded theory approach. The findings of this study have revealed that there is lack of compliance with procurement procedures in the city councils due to poor alignment of the procurement function, lack of professionalism in public procurements, lack of corrective measures for those that breach the procurement laws, negative organization culture, lack of awareness, perceived inefficiency, fear towards losing control, bureaucracy and lack of information technologies. The study also found out that, since the procurement function operates at clerical levels, senior city council authorities do not fully comply with its regulations

The level of system automation infrastructure within the district assemblies and their impact on enhancing public procurement practice

Patel (2017) carried out a study to investigate e-procurement practices in India in selected industrial manufacturing organizations in Gujarat. Backgrounding this study is the understanding that manufacturing sector has a greater propensity to adopt technologies such as e-Procurement in India. In general, most of the research designs used by researchers have been exploratory, descriptive and causal. This study will be based on newness of the technology involved. Search of the literature with reference to India has provided limited research. So, this descriptive research adopted a quantitative methodology with a questionnaire being the instrument employed to investigate various e-procurement practices within a sample of those manufacturing firms which used e-procurement. Data was collected from 72 manufacturing industrial units from Gujarat which includes South, north, central Gujarat and Saurashtra region. Data was collected by Non-Probability Convenience Sampling technique. The sample consisted of executive officers and managers concerned with e-procurement activities of an organization. The study revealed that a great number of manufacturing companies had adopted the latest ICTs used in e-procurement and had acquired appliances and equipment that support these innovations. In terms of performance, those companies with the most modern e-procurement systems had the most vibrant procurement functions than those that did not have such technologies. It was further observed that those firms with vibrant procurement functions performed better on the overall than those with less vibrant procurement systems.

A similar study on adoption of procurement technologies was conducted in Sweden by Wakim and Akker (2019). They explored SPP using Institutional and Power Dependence Theory in the context of the surgical instrument industry in Sweden. Methodologically, the study was grounded in an exploratory design and employed in-depth interviews with multiple stakeholders to gain a holistic understanding of the phenomena being studied. The study revealed that SPP mainly influences suppliers by requiring them to evaluate their own sustainability practices, engage in collaborative actions and make alterations when they fail to comply with the contractual terms. The most significant challenge resulted to be the lack of resources, resulting in the inability to perform sufficient follow-ups, engage in meaningful conversations with suppliers and procurers having to buy unsustainable products because of their tight budgets. Another major challenge was

Sweden's forerunner position when it comes to SPP on an international level, resulting in reluctance on the part of international suppliers to alter their sustainability practices.

Having realised that E-procurement plays an important role in achieving a firm's goals, in which case it is more than just a system for making purchases online, and that provides an organized way to keep an open line of communication with potential suppliers during a business process, Barasa, Namusonge and Okwaro (2017) carried out a study to investigate the Effects of E-Procurement on organizational performance of public organizations focusing on Bungoma County Government. The study was guided by the following specific research objectives: to establish the effects of E-Tendering on the performance of Bungoma County Government; to establish the effects of E-Auction on the performance of Bungoma County Government; to establish the effects of E-Purchasing on the performance of Bungoma County Government and to establish the effects of E-Invoicing on the performance of Bungoma County Government. The study utilized a case study research design and targeted employees of Bungoma County Government in the departments of procurement totalling to 150. The study employed simple random Sampling and purposive sampling. The main research instrument that was used was questionnaires which were administered personally by the researcher after getting authorization from Jomo Kenyatta University of Agriculture and Technology and the Bungoma County Government. Validity of research instruments was ensured through careful examination of the content of the test and removing from it all those elements that may prejudice participant's responses. In order to test the reliability of the instrument to be used in the study, the test - retest method was used, where the questionnaires were administered twice within at interval of two weeks to the respondents who were not involved in the study. Collected data were analysed using both quantitative and qualitative measures. Qualitative data regarding the factors influencing Supplier Relationship Management was analysed using content analysis to measure the semantic contents of the message. Qualitative data was analysed using statistical data analysis. The data was tabulated in pie-charts, tables and graphs for easier understanding and presentation. The study revealed that E-procurement improves the performance of the County Governments in Kenya.

A study by Kawuki (2019) in Uganda which was intended to establish the impact of automated procurement on the performance of business in supermarkets indicated that procurement system automation has a very huge impact on improving the performance of business

operations in supermarkets. The study was conducted basing on the understanding that automated procurement (c-procurement) is a growing aspect of supply chain management and is receiving a lot of attention from supermarkets globally. This is because there is stiff competition in the supermarket industry and customers are exerting pressure on retailers in terms of; demand variability, reduced lead-time, need for customized products and services. Therefore, supermarkets can longer compete on cost reduction alone, but also on how efficient they can procure their products and services. This study set to establish automated procurement systems and performance of Jazz Supermarket, Bugolobi. This research was carried out through a descriptive design. The target population of this study was the staff of Jazz Supermarkets in Bugoloobi. Given that this is a relatively small population, a census was used. The researcher mainly used descriptive statistics to analyse data. This included frequency distribution tables and graphs.

Performance of Jazz supermarket was analysed using correlation and regression analysis. In order to establish the effect of c-procurement on the performance of Jazz supermarket, regression analysis was employed. The study revealed that majority of Jazz Supermarket relied on electronic mail and automated identification bar-coding systems to transact their procurement operations more than any other systems mentioned to them. For instance, most branches communicated orders through sending emails to suppliers' sales agents via emails and this hastened the period of delivery and confirmation of products being available or not. This ensured that there was regularly and constant communication via email between supermarkets and their suppliers. It was also established that time was saved and this propelled the retail chains to gain competitive advantage in the supermarket industry. Moreover, accuracy of products ordered and delivered was maintained when those systems were used. Bivariate correlation results showed that there existed a significant positive effect of automated procurement systems and performance of Jazz supermarket in Bugoloobi. Lastly, the results established that the degree of correlation of the independent predictor (automation of procurement systems) and performance of Jazz supermarket was not strong due to various challenges stretching from; high cost of system implementation, slow user acceptance of new automated procurement systems, lack of management support in adoption of new systems, inadequate IT and networking infrastructure and inadequate employee training. These among other factors mentioned affected effective utilisation of automation systems on performance of Jazz supermarket, Bugoloobi.

In Saudi Arabia, Madhdillou and Akbary (2014) described and illustrated how e-procurement could contribute in creating value and reducing overheads associated with the procurement process through adopting and implementing e-procurement systems and applications in the supply chain network of an organization. They deem it an obvious fact that e-procurement plays a vital role in managing the supply chain especially now that outsourcing has become very common in the business market environment around the world. They carried out a study to find out how e-procurement can contribute in creating value, reducing cost and gaining more profit out of the procurement process. Since this thesis report is meant to cover the available literature on procurement and e-procurement only limited areas of the supply chain management is presented. The study revealed that e-procurement served as a catalyst for enhanced organization performance in the field of industrial engineering. Among the notable benefits of adopting e-procurement innovations the study discovered was that e-procurement contributes towards creating value and reducing costs and overheads in the supply chain management.

A multifaceted study by Medard (2016) set out to examine the level of technology adopted to ensure inventory control and adherence to professionalism with respect to materials management at a centre in Tanzania. Purposive sampling was used to gather information from the targeted respondents as the study wanted to obtain relevant data from the field to have viable findings. The study involved 120 respondents. Data was analysed using Statistical Package for Social Sciences (SPSS 16.0 for windows). The study revealed that the centre had qualified personnel in materials management, the study realized that the centre had been using Materials Requirements Planning (MRP) technique to ensure inventory control, inventories were controlled electronically using inventory system called Microsoft dynamics – Navision. The study also revealed that the centre used First-In-First Out (FIFO) system in evaluating or pricing stocks to ensure efficiency in stores operations. The study concluded that there was a notable improvement in materials management in parastatals unlike what the case was like in the previous years where stores functions were done by unqualified people which resulted in unnecessary losses to the government.

An akin study was carried out by Keana (2015) in Kenya. The study sought to examine the extent to which installation of automated procurement systems at selected supermarkets in the City of Nairobi ameliorated the performance of the said stores. The study adopted a descriptive design.

The target population were 52 supermarkets in the city. To establish the effect of e-procurement on the performance of supermarkets, regression analysis was employed. The study revealed that majority of supermarkets relied on electronic mail and automated identification bar-coding systems to transact their procurement operations more than any other systems mentioned to them. For instance, most supermarkets communicated orders through sending emails to suppliers' sales agents via emails and this hastened the period of delivery and confirmation of products being available or not. This ensured that there was regularly and constant communication via email between supermarkets and their suppliers. It was also established that time was saved and this propelled the retail chains to gain competitive advantage in the supermarket industry. Moreover, accuracy of products ordered and delivered was maintained when those systems were used. Bivariate correlation results showed that there existed a significant positive effect of automated procurement systems and performance of selected supermarkets in Nairobi city. Lastly, the results established that the degree of correlation of the independent predictor, which is herein automation of procurement systems, and performance of supermarkets was not strong due to various challenges stretching from; high cost of system implementation, slow user acceptance of new automated procurement systems, lack of management support in adoption of new systems, inadequate IT and networking infrastructure, and inadequate employee training. These stood out among several other factors that the study discovered to affect effective utilisation of automation e-procurement systems, which eventually had detrimental implications on the overall performance of supermarkets.

A related study was carried out by Keana (2015) in Nairobi. This study set out to establish the impact of automated procurement systems on the performance of supermarkets in Nairobi. This research was carried out through a descriptive design. The target population of this study was the supermarkets in Nairobi Kenya which are about 52 supermarkets in Nairobi, Kenya. Given that this is a relatively small population, a census was used. The researcher mainly used descriptive statistics to analyse data. This included frequency distribution tables, mean and standard deviation. Performance of supermarkets was analysed using correlation and regression analysis. To establish the effect of e-procurement on the performance of supermarkets, regression analysis was employed. The study revealed that majority of supermarkets relied on electronic mail and automated identification bar-coding systems to transact their procurement operations more than

any other systems mentioned to them. For instance, most supermarkets communicated orders through sending emails to suppliers' sales agents via emails and this hastened the period of delivery and confirmation of products being available or not. This ensured that there was regularly and constant communication via email between supermarkets and their suppliers. It was also established that time was saved and this propelled the retail chains to gain competitive advantage in the supermarket industry. Moreover, accuracy of products ordered and delivered was maintained when those systems were used. Bivariate correlation results showed that there existed a significant positive effect of automated procurement systems and performance of selected supermarkets in Nairobi city. Lastly, the results established that the degree of correlation of the independent predictor (automation of procurement systems) and performance of supermarkets was not strong due to various challenges stretching from; high cost of system implementation, slow user acceptance of new automated procurement systems, lack of management support in adoption of new systems, inadequate IT and networking infrastructure and inadequate employee training. These among other factors mentioned affected effective utilisation of automation systems on performance of supermarkets.

Ngugi and Mugo (2017) embarked on a research project that was intended to analyse the purchasing process in the health care industry in Kenya. The findings revealed that accountability, ICT adoption and ethics affected procurement process of health care supplies in the public sector to a great extent. These findings were ascribed to the observation that the rate of adoption of modern e-procurement technologies was very low at these health facilities as most institutions in the industry made use of outdated procurement systems. On the contrary, findings of a study by Abdalla and Wanjiru (2016) on effects of adoption of Information Communication Technology on the performance of procurement process in Kenya's oil industry revealed that e-procurement enhances procurement function and improves the overall performance of an organization. The survey was carried out in Mombasa County of Kenya on Total Kenya Limited. It was revealed that the impact of ICT adoption on procurement processes significantly led to time reductions and quality improvements, rather than cost reductions as reported by many authors. The old view that ICT applications are associated with cost reductions was contested in this research. The study found that the company was likely to realize improvements in cycle time reductions and process quality. In terms of ICT adaptability, the study found that the company had not adopted more

complicated e-business applications. From the study it is also clear that the adoption of ICT applications is not exclusively a matter of resources, on the contrary, operational compatibility and the level of supply chain collaboration are two of the factors that play a determinant role in increased ICT adoption and impact assessment.

A study by Liao et al. (2013) on use of technology in purchasing, which was particularly intended to establish the impact of the said procurement technologies on performance and future confidence of the firms. The study concluded that e-purchasing strongly and positively correlates with the integration between the Finance and Purchasing departments, and that it improves the operational performance within these departments. Furthermore, it was observed that e-procurement positively affects the confidence of managers in future organizational performance in the face of internal and external risk. Okore and Muturi (2016) conducted a study to examine factors that affect efficiency of procurement in public institutions in Kenya. The study was carried out on public entities in Homabay County. The study found out; first, that there is close relationship between ICT procurement performances and efficiency of the procurement function as illustrated by the observation that highly integrated public e-procurement processes were more efficient than manual procurement process; second, that ICT integration within public institution improves customer service delivery making it simpler and more efficient; and third, that proper contract management in public procurement, which is best achieved through adoption of e-procurement systems, helps to achieve efficiency in public sector.

These findings are in harmony with an observation made by Mongare and Nasidai (2014) in their study that sought to discover the impact of information communication technology on inventory control systems in transport organization. The study employed a case study approach, and it was done on Kenya Ferry Services. The findings of this study confirmed the view that technology has a huge impact on inventory control in terms of efficiency, ease of accessing information and accuracy, thereby affecting organizational performance.

From the literature reviewed on adoption of system automation infrastructure in organizations, it can be concluded that installation of automated systems in the procurement function of organizations will have a bearing on the performance of the organizations. However, respective of the observations made by other studies that adoption of e-procurement innovations is still low regardless of its notable benefits, it is worthwhile that more studies be conducted to

explore factors that influence adoption of the said innovations. It is this gap, among others discussed earlier, that the present study is intended to fill, particularly in the context of Malawi.

Procurement forecasting

This is considered as an important step in procurement. It is regarded as one of the crucial processes since it connects procurement plan with main business strategy and objectives to be achieved in the organization (Farrington, 2016). It is very important to consider the following when developing forecasting plan: (i) Procurement requirements definition (ii) Implementation of capacity assessment (iii) Project implementation time frame determination (iv) Realistic budget forecast of not less than three years (v) Approvals from departmental heads (vi) Identification of items to be procured in an organization (vii) Determine justification for the actual procurement to be made.

Forecasting should be done annually at an organization and should at least cover a period of not less than three years. Most organizations review their procurement forecasts semi-annually so that it can be updated and adjusted accordingly. However, managers need to know that forecasting always need data that is accurate and up to date which poses a challenge on the budgets of an organization as it costs a lot of money to pay enumerators when collecting data (Walker, 2013).

Things to consider when initiating the Procurement Process

When initiating the procurement process, it must follow a certain process which have the following steps: All the necessary activities are to be taken into consideration. At this step, the officers need to conduct market analysis so that people become aware of the products that can be procured. Before market analysis, the procurement plan has to be in place ready to be followed (Walker, 2013). At this stage, estimate the cost of all the activities in the plan developed. Also set very clear timeframe for each activity when it the procured materials will be delivered. The last thing in this stage is to get authorization to proceed with the procurement activities that have been outlined. When seeking authorization, make sure that the funds for the activities are available. In the same line of activities, prepare a statement of work, the purpose and the objectives to be undertaken by the contractor that will be done in the activity. In this statement of work, the procurement officers should consider the following characteristics such as detailed purpose statement, objectives to be achieved by the contractor (Oenga et al., 2022). Oenga et al. (2022)

illustrated that in the statement of work, the following are to be available: (i) A detailed statement of the purpose, objective or goals to be undertaken by the contractor. (ii) The job classification or approximate skill level of the personnel to be made available by the contractor. (iii) An identification of all significant material to be developed by the contractor and delivered to the client. (iv) An identification of all significant materials to be delivered by the client to the contractor. (v) An estimated time schedule for the provision of these services by the contractor. (vi) Completion criteria for the work to be performed. (vii) The name or identification of the contractor's personnel to be assigned. (viii) The contractor's work hours required to accomplish the purpose, objective or goals. (ix) The contractor's billing rates per work hour (as provided in the contract documentation). (x) Contractor's total cost (Oenga et al., 2022).

The next step is the requisition step which should be taken into consideration that the verification for the items to be procured has been done. Also make sure that evaluation criteria are established and each criterion has to be clear and concise so that there is a good understanding of the items to be procured. In the same way, establish sound scoring plan which explains how the proposals that are in place will be evaluated (Cooper, 2008). The other thing is to establish the scoring methodology to be followed. Also establish whether pre-solicitation conference will be conducted before selecting the contractor. Also in the same step, establish the change request management plan and a plan related to the payment of the vendor, develop solicitation package and the procurement to review the plan and make final approvals of the Request for proposal and approvals can be done by the donor or responsible officers at that particular organization (Samuel, 2012).

The evaluation team should consist of experts in the procurement processes and they should make recommendations to the procurement officer. This procurement officer should review the documents and then draft the contract and then forward them to the relevant authority be either a donor or manager. Contract Administration is another step that ensures that the vendor and the product that is delivered are complying to the standards that were set. Contract Administrator should do everything that is needed in the procurement until the contract is terminated upon expiration of the contract (Farrington, 2016).

The last step is contract closeout.

This is a step where procured items are verified so that the products meet the required standard. At this stage is where there are approvals for the payments to be done and all project records are updated. In this particular step, close procurement order is done and the files are archived this will include the procurement plan as well.

Managing Risks in the Procurement Process

In every project, expect risks to happen. What is needed is to manage the risks at an early stage. So, in procurement process, these risks also happen. The major risks expected to happen are fraud and corruption. Therefore, procurement process requires application of good risk management principles to be adhered to. Risk management practices should be adhered to so that government and other organization's properties are protected and procurement objectives and outcomes are achieved. Risks are expected to happen at every stage of the procurement process and need to be taken identified and managed effectively

In procurement, the level and nature of risk management in the procurement process will vary depending on the nature, size and complexity of procurement (Guide Notes on Procurement Planning and Strategy, 2020). When developing the procurement process, it is important that the planners are able to identify the risks involved in various stages of the procurement process. They should be able to evaluate the risk management process undertaken by management and see whether appropriate measures have been undertaken to overcome the identified risks.

The term risk is explained as the uncertainty of an event happening that could have an impact on the achievement of objectives set by an organization. Risks happen in different levels and is measured in terms of the consequences and likelihood to happen. This is very important because managers have to look them with keen eye and take corrective measures. Managers in different organization put in place measures to mitigate them. These risks will have an effect in the performance of a business and how they can achieve their goals. The negative effects are called risks and the positive effects are called opportunities (Guide Notes on Procurement Planning and Strategy, 2020).

The Risk Management Process

Risk in any organization should be noticed as early as possible especially in procurement planning. However, just identifying a risk is not enough, there must be ways and means of addressing them so that procurement process can run smoothly. The major problem with many organizations is that many managers do not know how to manage the risks effectively and efficiently which is a vital issue to address (Guide Notes on Procurement Planning and Strategy (2020)). Managing risks is a very important process to be known by every staff of an organization. Risk management plans need to be put in place in advance by every organization. It is the role of the managers to deal out with the risks being identified. As managers, they need to monitor the plans that have been developed and the plans can be reviewed now and again so that adjustments can be done accordingly. In procurement, outcome of the risk management process has to be known as formal Risk Management Plan that has to be designed following the stages (Guide Notes on Procurement Planning and Strategy (2020)) as illustrated below.

Establish Contexts

This is a stage that involves identifying key business objectives, their processes and resources. When developing risk management strategy associated with procurement, there is need to understand the goods that will be delivered, the business outcomes and their outputs that are to be supported by those goods, their management surrounding and risks associated with the entire procurement (Mokogi, 2015). In this stage there are questions that are asked: (i) What are the objectives and the goals for managing procurement? This involves the objectives that are to be set. (ii) Who are interested in the procurement that is the stakeholders that are to be involved? This involves stakeholders that will be needed. (iii) What measures are to be considered for the success of the procurement? This involves the criteria to be considered. (iv) What key aspects that make the procurement a success? This looks at key elements to be considered. This helps an organization to identify the priorities in the procurement department and determine the amount of resources that are needed. In procurement, costs incurred in mitigating the risk should tally with the size, type and complexity of the procurement and the benefits to be gained in terms of reduced levels of risk so that the objectives are achieved (Mutai et al, 2015).

Identifying the Risk

At an organization, it is imperative to identify the risks that may affect your performance in advance. In this stage there are two major questions that need to be answered. (i) What events could occur that may heavily affect upon the objective of the procurement that have been developed? (ii) How could these events happen and if they did, in what way would they impact upon the procurement?

Analyse and Evaluate the Risks

This is another stage that requires employees especially management of the organization to evaluate the likelihood of the risk and how serious it will be. Measures are to be weighed and find out the significance of managing them (Golder, 2007).

Manage the Risks

When managing risks, it is important to implement the preventive measures that have been put in place or have contingency plans. It must be clearly stated who will be responsible for what and when to implement the action or what actual actions can be put in place (Guide Notes on Procurement Planning and Strategy, 2020).

Procurement effectiveness

Procurement effectiveness depends on activeness of the participants and good coordination that exist between the procurement department and the users of the products that have been procured (Weele, 2016). A good example could be when a firm wants to procure desktop computers for the office and when there is no specification of the item to be procured, it becomes a challenge. It leads to delays and poor-quality items that are being purchased. Long at last, leads to implications on the costs incurred by the firm (Schlosser, 2013). Naylor (2012) explained that Procurement plan is a detailed description of products and services to be obtained from suppliers within a given financial year. The procurement plan is an instrument that is used in implementing the budget and is prepared by those that use the budget in such a way to avoid over expenditure or under expenditure (PPADA, 2015). In this case, the user of the budget are the ones that participate in preparing the budget according to their requirements also consider the budget that has been approved that financial year. This budget is supposed to be comprehensive in such a way that it covers everything needed. This procurement budget is very important because it helps to have a

good procurement process (Naylor, 2012). Saunders (2010) explained that procurement process comprises of stages followed from the need identification until the item is procured and delivered. This also include payment of the supplier. All activities that are played in between are included in the procurement process. Procurement officers are requested to adhere to the procurement plan and procurement process. Failure to have procurement plan will lead to failure to have procurement process and the firm operations are affected negatively. As illustrated by Jorge (2015), effective procurement process is identified by quality products being purchased, cost reduction and short lead times ending up with customers satisfaction. For the procurement process to be effective, there must be good coordination. Purchasing effectiveness is considered to be the result of user department involvement in the entire procurement process. This means user involvement is not an end in itself but a means to effective and efficient control and monitoring of the purchasing function (Weele, 2016).

In Rwanda, the public procurement process that is followed is under Ministry of Finance and is decentralized in nature. There is Public Procurement Authority (RPPA) which does not operate on its own but under Ministry of Finance and Economic Planning. The Public procurement system in this country is governed by six fundamental principles: Transparency, Competition, Economy, Efficiency, Fairness and Accountability (RPPA, 2012). It is advisable to have a user of the item being procured when procurement committee is meeting so that the user can make good specifications of the product to be procured (The Rwandese Public Procurement User Guide, 2015). This is illustrated as following: The user unit plays the role of making the requisition for the required procurement, describing the nature of the requirements (quantity, specifications) and ensuring that the procured items meet the requirements of the user. To this effect, its role in defining technical specifications, participating in technical evaluation and inspecting the procured items before they are accepted is crucial.

Other countries like Kenya, all the standard forms are used by the procurement officers depending on the sponsor of that particular project, with the Public Procurement Oversight Authority (PPOA) standards being used mainly for public goods funded by the Kenyan Government (PPOA, 2009). The way Kenyan government conducts its procurement process is following the abolishment of the tender committee and procurement committee and Accounting Officers do the procurement after recommendations from the Head of Procurement Unit. The Act

also among other issues introduced new procurement methods which were not envisaged in the previous Act of, 2005 and the regulations, 2006. The Public Procurement and Disposal General Manual (2012), explains that the user department shall be responsible for initiating procurement and disposal requirements and forwarding them to the procurement unit, participating in the evaluation of tenders, proposals and quotations, preparation of technical specification, undertaking conformity assessment of supplied goods, works and services with the specification of the contract documents and endorsing the issuance of goods, works and services received notes.

Supplier Management

According to Lee (2002) Supplier management (SRM) is explained as a discipline of working together with those suppliers that are considered important to the success of the organization to maximize the needed value of that relationship. SRM deals with developing two-way, mutual beneficial relationships with the organization's strategic supply partners that provide greater standards of innovation and competitive advantage and this relationship is achieved by operating independently. According to Peters (2004), SRM heads or managers should be responsible for managing a reasonable number of suppliers no more than three supplier relationships, so that enough time can be given to the suppliers to be attended properly every time they have an issue. Staff that are concerned in SRM activities will have the skills such as commercial, technical and interpersonal skills. Commercial skills, knowledge in market, analytical capabilities and project management know-how are important. In addition to this, soft skills in communication, listening, influencing and managing change are important to develop strong and trusting working relations with the suppliers. It is important that SRM leaders understand their suppliers' business and their strategic goals. They should see issues from the supplier's point of view, at the same time balancing this with the organizational requirements and priorities so that they achieve their goals. Browne (2004) explained that supplier relationship management is a comprehensive business approach to managing an enterprise's interactions with the organizations that supply the goods and services they use. The goal of supplier relationship management (SRM) is to streamline and make more effective the processes between an enterprise and its suppliers just as customer relationship management (CRM) is intended to streamline and make more effective the processes between an enterprise and its customers. Cooper (2005) explained as follows.

SRM includes both business practices and software and is part of the information flow component of supply chain management (SCM). SRM practices create a common frame of reference to enable effective communication between an enterprise and suppliers who may use quite different business practices and terminology. As a result, SRM increases the efficiency of processes associated with acquiring goods and services, managing inventory, and processing materials. Cooper (2005), explained that use of SRM software can help to lower production costs and gives high quality but lower priced end product that attracts the suppliers. Supplier involvement in product development allows firm to make better use of their suppliers' capabilities and technology to deliver competitive products. Coordinating operational activities through joint planning also results to inventory reduction, smoothing production, improve product quality, and lead time reduction. The firm's integration is an effective strategy in enhancing suppliers' commitment throughout product lifecycle and is an effective strategy in reducing supply uncertainty (Handfield, 2009). Lysons (2008) illustrated that customer relationship management (CRM) is a widely-implemented strategy for managing a company's interactions with customers, clients and sales prospects. This involves using modern technology to organize, automate, and synchronize business processes and sales activities. At the same time, assist in marketing, customer service, and technical support for the supplier. The main goal is to acquire, attract, and win new clients, support and retain those the company already has by enticing former clients back into the system, and also reducing the costs of marketing costs and improve client service. Customer relationship management illustrates a company-wide business strategy that includes customer-interface departments as well as other departments at that firm or organization. Measuring and valuing customer relationships is critical to implementing this strategy.

Findlay (2009) explained that supplier management is a business process that allows a company to select its vendors and provide negotiation on the best prices for goods and services that it procures. Senior managers of the organization also monitor the corporate supply chain to ensure that vendors familiarize themselves with the company's operating activities and manufacturing processes (Arthur, 2009). Findlay (2009) conducted a study and noted that many public training institutions in USA encountered supplier management challenges that hampered implementation of effective procurement practices. The important challenges met by many institutions included; supplier appraisal methods, supplier selection strategies and supplier rating

methods. Gadde's (2007) conducted a study and revealed that many public training institutions in India use poor supplier appraisal methods and this hindered implementation of effective procurement practices. Mulwa (2009) conducted a study and revealed that the use of poor supplier appraisal methods and application of ineffective supplier selection process results into poor implementation of effective procurement practices in many public training institutions in Kenya. According to Oyugi (2010), he explained that many public training institutions in Kenya do not have supplier relationship management strategies and they do not collaborate well with suppliers and this brings negative effects towards implementation of cost-effective procurement practices. This study, therefore, indicated that the key factors influencing supplier management that affect implementation of effective procurement practices in tertiary public training institutions are; poor supplier appraisal techniques, poor supplier selection strategies, poor supplier selection process, lack of effective supplier performance rating method, lack of supplier relationship management, lack of supplier development and lack of supplier collaboration. Mohamed (2016) investigated on systematic challenges faced procurement system in Tanzania. The study addressed non-compliance of procurement rules and regulations as a crucial challenge which mainly form the bases for regulatory reforms in ensuring effectiveness of procurement system. But the study fails to address the factors contributing non-compliance behaviour of procurement regulations in public sectors. These are the major factors that affect the effective implementation of the procurement practices.

When studying supplier management, prepare to have been largely issues that are dominated by mathematical models which rates and ranks suppliers based on a number of factors like cost, quality, service, and delivery (De Boer, 2001). In an era of new trends in products and services outsourcing, there is an increasing demand to employ theories from other relevant disciplines such as from economics, strategy and organizational behaviour to supply management and supplier selection/evaluation/development research (De Boer, 2001).

Procurement Policies

Policy is a guideline that institutions develop for them to follow. A procurement policy are the rules and regulations that are set at an institution to govern the process of acquiring products needed by an organization to function well (Findlay 2009). The process of having policies will help to reduce expenses associated with the purchase of those goods and services by using such

strategies as volume purchasing; the establishment of a set roster of vendors, and establishing reorder protocols that help to keep inventories low without interfering the function of the operation at an organization. In all circumstances small and large companies and non-profit organizations routinely make sure they use some sort of procurement policy. There are so many ways of establishing a procurement policy and include factors like size of the business, the availability of vendors to provide necessary goods and services also the cash flow and credit of the company will definitely influence the purchasing procurement approach (Golder, 2007). One factor to consider when developing procurement policies is the size of the firm. For instance, a small firms may not be able to offer discounts as large firms do because they do not have enough resources (Hall, 2009). These policy benefits the company by keeping costs in line and clearly explains how purchases will be done (Hall, 2009). As the needs of the entity change, there is a good chance that the procurement policy will be adjusted to meet those new changes. This is necessary to make sure the policy continues to function in the best interests of the company or non-profit organization and keep the acquisition process simple and in an orderly manner. PPOA (2007), the public procurement system in many countries including Kenya has been undergoing consistent reforms following the global trend way back mid-1990s and most this happened mainly between 1997-2001 and going towards 2005. Before these reforms, the legal framework governing public procurement was not good since it provided an environment where all involved in procurement had chance to do unethical issues towards procurement such as corruption procurement including the endemic corruption that jeopardised the procurement system. According to George (2010), explains that the level of compliance with procurement regulations influences the efficiency of the procurement procedures in public sector organizations. According to Findlay, (2009), the official launch of Public Procurement Reforms in Kenya helped the country to set the reform road map in the area of public procurement. This was done by putting in place a unified legal and regulatory framework to guide the reforms. This was realized through the gazettment of the Exchequer and Audit Act Public Procurement, Regulations in 2001. This helped to harmonize all the Treasury circulars and manuals governing procurement in the public sector. Putting in place an institution to oversee development and implementation of the public procurement policy in Kenya and improve transparency. This idea was realized by creating the Public Procurement Directorate (PPD) to oversee the public procurement process in Kenya and the Public Procurement

Complaints, brought about by concerned citizens. There was a Review and Appeals Board (PPCRAB) that was set to handle tendering disputes Act (PPOA, 2007).

Christianne (2008) indicated that the procurement policies employed by many public training institutions in UK determine the level of effectiveness in execution of the procurement practices. The results of the study conducted also found that the level of procurement rules and regulations compliance, level of top management support and the employed procurement procedures help to determine the level of the employed procurement policies in many training institutions. Jackson (2007) indicated that over 70% of public and private companies in Britain and Germany have introduced and are implementing effective procurement policies. The study also indicated that in China, only less than 30% of organizations in that country have managed to implement effective procurement policies successfully. In his research, Talluri (2008) established that many government organizations in India and Malaysia do not have effective procurement policies that can support them to implement sustainable procurement policies. George (2008) noted that in many African governments, corporations do not have effective procurement policies and this influences implementation of ineffective procurement practices in their organizations. Findings by Simpson and Power (2007) indicated that due to low level of procurement regulations compliance in many public training institutions in developing nations, brings challenge when it comes to effective implementation of procurement functions and this retards implementation of institutional development projects that are put in place. However, Elliot (2007) noted that implementation of poor procurement policies and lack of top management support does not promote bring effective implementation of procurement practice in many government institutions in East Africa. It is established that many procurement leaders in Kenyan state corporations do not have competitive knowledge and skills on how to formulate and implement effective procurement policies in many public institutions. A study by Shalle (2014) explained that procurement reforms have led to enactment of Public Procurement and Disposal Act 2005, the Public Procurement and Disposal Regulations 2006 and the Secondary Schools and Colleges Procurement Manual of 2007 in Kenya. The manual issued by the government of Kenya provided procurement guidelines on KESSP related expenditure. The manuals help to make reference to other Ministry of Education publications that stand out in a more comprehensive manner. the processes to be observed in the procurement of particular items such as instructional materials and school infrastructure. The study

also indicated that less than 20% of public colleges undertake their procurement practices seriously following the Secondary Schools and Colleges Procurement Manual guidelines.

Inventory Management

This is the process of efficiently overseeing that there is constant flow of units into and out of an existing inventory as indicated by Elliot (2007). By the way, the process involves controlling the transfer of units to prevent the inventory from becoming too high, or shrinking to the levels that could put the operation of the company into a challenge. At an organization, effective inventory management helps to control the costs associated with the inventory being handled and this looks both from the side of the total value of the goods included and the tax burden generated by the organization in a cumulative value manner of the inventory (Barcodesinc, 2012).

In an organization, when balancing different tasks of inventory management of an organization, it means there is need to pay attention to three key aspects of any inventory (Benton, 2007). These aspects are as follows; The first thing is to do with time. This time has to consider materials acquired to be included in the total inventory, this means knowing how long it takes for a supplier to work out an order and implement a delivery. In inventory management, there is also a demand for a solid understanding of how long it takes for the selected materials to transfer out of the inventory that has been established. Having an understanding of these two important issues such as lead times helps to make it possible to understand when to place an order and how many units must be ordered to keep production running throughout (Barcodesinc, 2012). It is also important to calculate buffer stock which is also a key factor to effective inventory management. This buffer stock is an additional unit above and beyond the minimum number required to keep the production or operations going. This can be for example, the Team Leader may decide that it is such a good idea to keep one or two extra units of a given item part on hand, just to make sure an emergency may arise or one of the units may be a defect once so that it cannot be used. Providing such a cushion or buffer stock will help to minimize the chance of production or operation to be interrupted due to shortage of important parts in the operation supply inventory (Margetta, 2008). Inventory management is not only documenting the delivery of raw materials and the movement of those items into operational process. This movement of materials when going through the different stages of production is another important factor to consider. This is known as a goods or work in progress inventory, and tracking materials in their form is used to create finished goods

and this also helps to determine the need to adjust ordering amounts before the raw materials inventory gets dangerously low or is inflated by other staff to an unfavourable level (Handfield, 2009).

The last thing to know is that, inventory management looks on keeping accurate records of finished goods that are ready for use. This then means that posting the production of newly completed goods on inventory totals and subtracting the most recent delivery of finished goods to buyers is also in inventory management (Cooper, 2008). When the organization has a return policy to be followed, there is a sub-category that is contained in the finished goods inventory to cater for any returned goods that are graded as second grade quality products. Keeping the figures of the finished goods inventory helps to make it possible to convey information to those such as sales representatives informing them what is available and what is ready for delivery at any given time. Also, when maintaining control of the volume and movement of different inventories, this process also helps to make it possible to prepare such accurate records used to access any taxes due on each inventory type of inventory. In the absence of this important data regarding unit volumes in each phase of the overall operation or production, the firm cannot accurately calculate the tax amounts to be paid. This could end up underpaying the due taxes and possibly incurring stiff penalties in the event of an independent audit in that particular firm (Barcodesinc, 2012).

Implementing the right inventory management models or approach for any of the purchased goods must not only address the cash tied up in physical inventory but also the costs of planning, storing, and handling such an item. In fact, within the same firm, the “right” inventory management approach for a particular purchased item may not be the “right” inventory management approach for another purchased item. However, many firms, the acceptable inventory management approach in the purchased item in one organization could not be the accepted inventory management approach for the same purchased item in another organization (Margetta, 2008).

Frankly speaking, most organization implement the four basic approaches to managing inbound inventory of raw materials, components, sub-systems, or retail inventory. These inventory management strategies have to be differentiated by asking different questions and one of them could be who owns the purchased items apart from the asking where these products are physically found type of questions (Handfield, 2009). Most organizations implement the inventory

speculation approach and this is considered as the best preferred one in most organizations. Those that implement this approach are likely to purchase products and physically keep them in their storage facilities before they are demanded or any requirements usage for such items come to be known by the organization. Organizations that choose this approach have many advantages when they are working on daily basis and in addition to this is the ability to respond very quickly to demands and usage needs of a particular firm and at the same time, they also avoid fluctuations in prices that may come due to economic factors changes. Those implementing and adhering to such an approach, the organization is able to avail itself of volume discounts and reduced inbound transportation costs from bulk buying. In some cases, the inventory speculation approach does not have its cost disadvantages. Though it has opportunity cost and financial challenge of having cash tied up in physical inventory, this approach also incurs some costs when implementing it and the cost likely is the high inventory holding costs that is needed when the goods are to be stored, handling the material and tracking them considering the challenge of inventory obsolescence expenses mainly when operating in highly volatile competitive environments (Christianne, 2008). Unlikely to inventory speculation, most operating organizations are operating under an inventory postponement approach, and this normally delays the purchase and the physical possession of inventory items until such demand or such usage requirements are known with certainty by an organization (Richardson, 2007). As such, any firm can reduce the risk of inventory obsolescence, reduce the opportunity cost of having capital tied up in such items. This too avoids incurring inventory storage and tracking expenses because these items are physically located with the supplier. Notably, such type of an approach has its bottlenecks. This is because the organization does not have enough time to respond quickly to all that may need the inventory that is kept and to be delivered in time to their facilities. As such, there is likelihood of transporting small amounts of goods to the clients that would result into meeting the challenge of price increase since as time goes, prices of commodities increase hence will affect the budget of the organization (Cooper, 2008). Those organizations that operating under an inventory consignment approach would have physically hold purchased items in inventory but, in this arrangement, ownership of these items would reside with its supplier (Cooper, 2008). Only after having items whether it is used in production or has been sold out to customers, then the firm is likely to make payments to such appropriate known suppliers. Those following this particular approach, would then benefit them

from having relatively immediate access to goods to meet the current demand or current usage without investing financial capital or risking obsolescence expense. On a sad note, in addition to this expense of storing, handling and tracking the purchased goods, a firm is likely to meet to price fluctuations referring to time the items were purchased physically to the time the client is to use the product or sell the product to other customers. Such a delay would affect the performance of the organization negatively (Richardson, 2007).

However, in inventory consignment, the said organization do their operations under a reverse inventory consignment approach and as such this may rarely pay for and own but could not take physical possession of inventory that a particular organization has purchased the items. However, the items would remain physically stored within the supplier's network of storage facilities (Richardson, 2007). At the organization's request, such an item would be transferred either into the firm's production facilities or directly to the firm's customer so that the customer can keep or use it. The benefits of an inventory consignment approach mirror the drawbacks of a reverse inventory consignment approach, and vice versa. With reverse inventory consignment, not only is the risk of future price increases mitigated but the storage and storage related costs also become trivialized. Rather, the disadvantages with this approach are the opportunity cost of capital tied up in physical inventory and the risk and expense of inventory obsolescence (Elliot, 2007).

In an organization, Materials requirements planning (MRP) systems is there to manage inventory in the supply chains with the assistance of time-phased inventory levels (Cooper, 2008). This MRP system comprises of a set of logically related procedures, rules regarding decisions and some records designed to lead to a master production schedule into time-phased net requirements and the planned coverage of such requirements for each stock point. The said MRP systems starts with a master production schedule that helps to provide the timing and quantities of production of all end-products ready to be used. With support of the bill of materials, these organizations have a series of gross requirements to be met during the time period that has been generated for components. When the existing inventory levels are assigned against the gross requirements to produce a time series of net requirements, this is then a requirement. Next, the net requirements are translated to planned receipts. Finally, these planned receipts are backed off over the lead time, resulting in planned order releases. These planned order releases are translated into gross requirements for the next lower component level in the bill of materials. For the next level, the

gross requirements are used to derive stepwise planned order releases, and so on (Cooper, 2008). MRP systems is there to overcome the challenge of traditional decision systems in a manufacturing environment. MRP systems make use of the dependent nature of demands for components; they take into account the time varying nature of the requirements and they co-ordinate stock points that deal with the same operation. With the explosion of planned orders, MRP systems make the gross requirements known for the upstream stock points, but not the information which led to these dates and quantities.

Furthermore, in a stochastic environment MRP is too rigid, resulting in nervousness of plans and rapidly decreasing performance as soon as the environment becomes uncertain (Margetta, 2008). DRP is simply the application of the MRP principles and techniques to the management of inventories in distribution. In DRP systems for each downstream stock point, a master schedule with its gross requirements is developed. Through allocation of existing inventory levels, net requirements for the stock point are obtained. These net requirements are translated to planned receipts and planned orders respectively. The planned orders are translated to gross requirements for the next upstream inventory points. DRP is a very natural extension of MRP that addresses the drawbacks of using independent control of the same product at different locations (De Boer, 2001). Bansal (2009) revealed that over 50% of American companies that have not effectively embraced effective procurement practices employ poor inventory management practices. Sobczak (2008) notes that many Japanese firms that employ just in time inventory management technique have succeeded in embracing effective procurement practices. Another study by De Boer (2001) noted that many organizations in Africa lack effective inventory management practices and this greatly influences application of effective procurement practices.

Hunja (2010) notes that inventory management problems that affects implementation of effective procurement practices in many public institutions in Canada include lack of application of economic order quantity principle, application of poor stores management practices, long lead time and higher inventory costs. Elliot (2007) found that many government training institutions in India employed ineffective inventory management practices because of lack of application of economic order quantity principle, application of poor stores management practices, long lead time and higher inventory costs. Shall (2014) conducted a study on role of inventory optimization on e-procurement performance in State Parastatals in Kenya. The findings of the study emphasize that

continuous inventory replenishment policy takes a regular order. The time of a replenishment decision is called an order point and the arrival of an order is regeneration point.

Public procurement in Malawi

Malawi is a landlocked, low-income country, with an agriculture-based economy, and a developing private sector. Malawi's gross national income (GNI) per capita was estimated at US\$320 in 2016. Aid accounts for 22 percent of the gross domestic product (GDP). Malawi's economy is dominated by a small number of large firms. The World Bank in Doing Business Report of 2018' ranks Malawi at 110 out of 190 countries for the ease of establishing and running a business. According to the 2017 Corruption Perceptions Index reported by Transparency International, Malawi is the 122nd least corrupt nation out of 175 countries. The country has a stable government and a democratic multiparty system since the end of the one-party rule in 1993. Malawi is engaged in regional integration, being a founding member of the Common Market for Eastern and Southern Africa (COMESA), the largest regional body in Africa. Malawi is also a member of the Southern African Development Community (SADC), a regional economic community comprising 15 Member States. Public procurement is an integral part of the government agenda. Public procurement is estimated to account for more than 14 percent of the country's GDP. Increase in efficiency in this area would have a substantive monetary and developmental impact, hence procurement ranks high on the government agenda. The Public Financial Management Rolling Plan (PFM RP) of 2017 to 2020 draft identifies "strengthening the efficiency and transparency of procurement systems" among the key strategic areas. The Malawi Growth and Development Strategy (MGDS III) (2017–2022) emphasizes the need to continue with the Public Financial Management reforms, including public procurement. It is also noteworthy that introduction of an electronic government procurement (e-GP) system is a government priority area, and work is under way through the World Bank-funded Malawi Digital Migration Project.

Progress was made in developing a legal and regulatory framework for public procurement starting in 2003 when Malawi adopted an UNCITRAL-based procurement law. The latest procurement law, the Public Procurement and Disposal of Assets Act (No. 27 of 2017) (PPD Act), brought some improvements as outlined below: (a) conferring an autonomous body status to the PPDA to strengthen its leading position in public procurement and (b) introducing a mandatory requirement to publish intention to award contracts above a specified financial threshold to achieve

greater transparency and accountability. The legal framework is generally consistent with internationally accepted practice promoting open competition as the default procurement method, promoting transparency by advertising procurement opportunities, allowing free access to public procurement markets, and enabling aggrieved bidders to appeal through a complaint mechanism.

Furthermore, the government has adopted a supportive suite of laws on accountability, integrity, and transparency, which is extremely relevant to public procurement, that is, the 2003 Public Audit Act, 2008 National Anti-Corruption Strategy, 2004 Corrupt Practices Act, 2013 Public Officer's (Declaration of Assets, Liabilities, and Business Interests) Act, and 2017 Access to Information Act. Finally, the institutional architecture for public procurement has been created, consisting of the apex institution, PPDA, having the normative and regulatory function for public procurement and about 200 procurement entities (PEs) decentralized up to the local level; the Public Private Partnership (PPP) Commission which is regulated under a separate act; the National Audit Office (NAO), responsible for audits including procurement audits; and the Anti-Corruption Bureau (ACB) whose mandate is to ensure public servants' disclosure of interests and enforce provisions of the Corrupt Practices Act including on procurement-related corruption.

Despite the progress achieved, the MAPS Assessment identified significant gaps in the public procurement legal and regulatory framework that may affect the efficiency, quality, and fairness of procurement outcomes. For instance, some key gaps relate to opportunities for conflict of interest in the responsibilities of the PPDA and the ACB, which cumulate two functions that are normally segregated: oversight and transaction clearance. This also undermines the complaints resolution function of the PPDA, making it less credible. Other substantive gaps relate to a multilayered, lengthy clearance process, omission in the law about two important existing central procurement bodies (Central Medical Stores Trust [CMST] and Central Government Stores [CGS]), the lack of proportionality and due process in bidders' debarment, and the absence of exclusion from the law for donors' funding.

Furthermore, it has been noted that, enforcement of the law is weak and the procurement process is cumbersome, while funding is a serious constraint. Application of the law is weak with less competitive methods being predominant even though open competition is the default procurement method: 80 percent of prior reviewed contracts during 2016–2017 were awarded through restricted tender. There is lack of implementation in publication of contract award notices,

noncompliance in preparation of procurement plans, delay in contract execution and payment of invoices, and poor record keeping. Finally, while the law requires availability of funding to start procurement, in practice often such funding is not available for contract execution due to resource constraints.

Staff capacity to conduct procurement is still weak, and they do not have appropriate guidance, effective capacity-building systems, and incentives to properly carry out their functions. Procurement is not recognized as a profession in practice and there is no career path. Furthermore, there are no updated implementing regulations, manuals, and Standard Bidding Documents for the new law, while the old ones are still effective, resulting in conflicting messages to practitioners. This is further compounded by the lack of clarity in the law regarding preference to disadvantaged 6 groups (indigenous black Malawians) and lack of regulation on micro, small, and medium enterprises (MSMEs) to operationalize them. Competition is low in the national market, while the private sector is facing, in practice, a series of constraints in accessing the public procurement market. Currently, the market is dominated by a few large national firms. Overall, the private sector's access to public procurement opportunities is hindered by (a) access to credit because of high interest rates and onerous payment conditions, (b) difficulties in obtaining bidding documents due to the absence of an online public procurement portal with required functionality, and (c) the lack of dialogue between the private and public sectors.

Procurement oversight is not adequately enforced, and integrity of procurement seems to be a binding constraint. The NAO lacks the capacity to carry out procurement audits. On the integrity side, the MAPS Survey underscores a perception that contract awards are 'predetermined', there is no effective appeals mechanism, and the noncompetitive methods are abused. Civil society does not play a role in monitoring public procurement and boosting the demand for good procurement. The 2018 SCD confirms that despite efforts to advance the anti-corruption agenda, implementation gaps are wide, and corruption and patronage remain endemic. The 2013 'cash gate' and the 2016 'maize-gate' drew the attention of politicians and public to public procurement and led to the passing of the PPD Act. However, the remedies provided in the new law, that is, mainly more controls and oversight, by themselves may not be enough to address the underlying causes of such events.

The recent procurement reviews conducted by the Office of the Director of Public Procurement (ODPP) indicate that record keeping is poor, use of Request for Quotations is common and late payments are leading huge public sector arrears, among others. Financial audits for fiscal year ended June 2012, June 2013, June 2014, June 2015, June 2016, and June 2017 also reveal similar substantive gaps such as poor procurement record keeping including the nonavailability of bid and other documents for audit purposes, irregularities in the bid evaluation processes and selection of firms.

Fraud and corruption are rife and award of contracts to the right firm faces challenges, which have a great impact on governance. In 2013/2014, about US\$50 million was siphoned from government coffers by civil servants in collusion with businessmen in what has been dubbed ‘cash gate’. This led to many bilateral donors withdrawing from the use of public systems in the implementation of donor-financed projects and budget support. In 2011, the government adopted the Public Finance and Economic Management Reform Program (PFEM RP) 2011–2014 as its umbrella framework for providing greater coherence and guidance to reforms of its public financial management (PFM) systems. Under the program, steps were taken to improve transparency in the procurement system. The subsequent Public Financial Management Rolling Plan (PFM RP) 2017–2020 has the goal of restoring confidence in PFM systems that suffered from massive internal fraud mentioned above.

The key institution responsible for the normative and regulatory function for procurement is the PPDA. The PPDA is responsible for the regulation, monitoring, and oversight of public procurement and disposal of assets in Malawi. The PPDA also carries out procurement reviews and is responsible for handling complaints. The PPDA is required to establish and maintain institutional links with MIPS and other professional bodies in regulating the ethical behaviour and standards of supply chain management professionals. According to the PPD Act, the public procurement system has a decentralized institutional structure with Controlling Officers under MDAs responsible for supervising the work of Procuring and Disposing Entities (PDEs). There are about 200 PEs including at the local government level. There are some other procurement bodies with the function of centralized procurement. Central Government Stores (CGS) was established by a fund order in the 1960s to procure and store materials in bulk for distribution in all government ministries and departments. The other central body that was established along with

CGS was the Central Medical Stores, now a trust (CMST). The NAO, by means of its mandate of ‘audit’, is also responsible for procurement audit.

There is a well-functioning ACB with the mandate to ensure that there is disclosure of interest by public officers and to enforce provisions of the Corrupt Practices Act, including on procurement-related corruption. The decision of contract award goes through a series of clearances by various control bodies: the ODPP/PPDA, Government Contracting Unit (GCU), Treasury, and Ministry of Justice (MoJ). It also requires clearance from the ACB for single source procurement or ‘any high-value procurement’. Such clearances are required in some of the cases without any mandate in PPA 2003 or in the PPD Act such as for the GCU, Treasury, and MoJ. The Public-Private Partnership (PPP) Commission, based in Blantyre, is mandated to deal with PPP activities, which are regulated through a separate PPP Act (No. 27 of 2011). In accordance with Part VI, Procedures for Awarding Contracts (Section 26–31) of this act, it follows steps of feasibility study, pre-qualification, request for proposal with evaluation criteria, and due treatment of unsolicited bids through a competitive process. The procurement process and contracts implementation are affected by weak PFM, which has tended to transmit recurring shocks to fiscal indiscipline, in turn exacerbating macroeconomic instability and delayed payment to contractors. There have been recurring instances of fiscal slippages, where realized deficits significantly exceeded those planned at the beginning of the year.

Factors affecting adherence to public procurement practices

Kinisa (2020) conducted a study on assessment of the stakeholders’ compliance with public procurement act of 2011 and its regulations in Longido district council in Tanzania. The aim of the study was to assess factors influencing public procurement compliance with Public Procurement Act of 2011 and its regulations in Longido District Council. The study also identified the major challenges facing stakeholders’ in complying with PPA of 2011 and its regulations. Moreover, the study determined possible measures for effective stakeholders’ compliance with Public Procurement Act of 2011 and its regulations. Descriptive design was useful for collecting data and techniques used for analysis. Data was collected using administered questionnaires. All completed questionnaires proceeded for data analysis. A total of 50 questionnaires were returned. Data was analysed using Statistical Package for Social Sciences (SPSS) Version 25 for descriptive and inferential statistics. The results from the analysis revealed that flow of funds, competence and

commitment, staff training, and ICT, top management support and internal processes are the key factors affecting stakeholders' compliance. Also, Lack of incentives, illiteracy and inadequate contract management skills among some service providers and accusation of conflict of interest, bribery and corruption in procurement processes were major challenges facing stakeholders' in complying with PPA and its regulations. Moreover, study findings revealed that addressing stakeholders' problems, stakeholders training and development and enhancing transparency to curb corruption are possible measures for effective stakeholders' compliance with PPA of 2011 and its regulations. The study recommends that there is need to do further research on the private sector in Tanzania. A broad-based study on the effect of compliance with Public Procurement Act of 2011 and its regulations in performance of organizations should also be carried out.

Okong'o and Muturi (2020) conducted a study on factors affecting procurement performance in public institutions in Kisii county of Kenya. The study sought to assess the factors affecting procurement performance in public institutions in Kisii County. The study examined at how procurement planning and political interference affect public procurement performance of the public institutions. The study employed a descriptive research design. The target population was 214 users in procurement department and suppliers of the public institutions in Kisii County. A survey questionnaire was developed and employed to collect data from the 54 respondents. Data analysis was done using descriptive statistics such as percentages and inferential statistics and presented in tables and figures. The findings of this study revealed that most public institutions have a procurement plan prepared annually and the political class is not supportive of procurement systems. This study recommends that for public procurement to be effective in the public institutions, the National Treasury and public institutions should organize regular skills upgrading courses on public procurement. Furthermore, the procurement plan should be prepared on time with strict adherence to it. The management should as a matter of urgency support the procurement department by allocating more funds and the procurement staff should be independent in the exercise of their mandate.

Onchweri and Muturi (2015) did another study on determinants of compliance in public procurement regulations in the public sector in Kenya. In their study, Onchweri and Muturi explained that, compliance levels to suppliers continue to be low in Kenya despite efforts by the public procurement oversight authority (PPOA). The specific objectives of the study were to

establish the extent to which ethics, awareness levels and supplier training on compliance of public procurement regulations influence performance in the public sector. The target population which was the totality of the cases comprised of 260 respondents. The sample size was 30% of the target population which comprised of 78 respondents. The study employed a descriptive survey research design. The questionnaire was used for data collection and data was analyzed with both qualitative and quantitative methods. The findings revealed that there was a significant correlation of 0.96 which implies that an increase in procurement ethics compliance increases the performance of the public sector by approximately 90%.

Makau (2017), conducted a study on factors affecting procurement in independent electoral and boundaries commission in Kenya. The purpose of the study was to investigate factors affecting public procurement in Kenyan public institution. Explanatory variables for the study included; organization structure, training, technology and budgetary resource. The study was significant to Kenya Institute of Education who oversee the daily operations of the organizations. A descriptive survey design was adopted for the purpose of the study. Stratified random sampling was utilized to select sample of populace. Target population was 218 employees and a sample of 65 respondents was selected from it. Majority of the respondent stated that budgetary resources, technology, organization structure and training affect procurement in an organization. The study recommended that, all employees in the purchasing department should be well trained. Furthermore, the employees should be Provided with refresher courses to ensure they are up to date with the policies of purchasing department.

In their study Adusei and Laar (2016) looked at the adherence to public procurement act in tamale polytechnic of Ghana. The paper examined the adherence to Public Procurement Act (PPA) of 2003 (Act 663) by Tamale Polytechnic. The key issues considered included procurement practices before and after the implementation of the PPA. A well-structured questionnaire was used to collect data from the employees at the polytechnic. Descriptive statistics, One Sample t-Test and Kendall's Coefficient of Concordance were used to analyse the data. Results from the study revealed that strict procurement procedures were not followed prior to PPA, though PPA brought sanity into the Polytechnic in their procurement processes, its implementations were bedevilled with a lot of challenges. The study suggested that management of the Polytechnic

should allow the procurement unit to operate freely without any form of interference in its quest to adhere to the PPA (Act 663).

Boronge and Ratemo (2022) on the determinants of effective implementation of public procurement reservation scheme in Kenya. The study sought to examine the determinants of effective implementation of public procurement reservation scheme in Kenya. Specifically, the study analysed the effect of Legal Compliance, Staff Competency and Organization Culture on the Implementation of Public Procurement Preference and Reservation scheme in the County Government of Nakuru. The target population comprised of 40 employees working as procurement professionals and accountants in the County Government of Nakuru, Kenya. The study adopted Census Sampling framework, Research hypotheses and descriptive research design. Both descriptive and inferential analysis was undertaken and the result be presented in frequency tables for ease of understanding and interpretations. The results of the study revealed that Legal compliance and organizational culture had a significant positive influence on effective implementation of public procurement preference and reservation scheme in Kenya. While supplier competency was found not to have significant influence on effective implementation of public procurement preference and reservation scheme in Kenya.

The study further recommended that that County Governments should comply with legal provision on preference and reservation as outlined in the public procurement and asset disposal Act 2015 and its regulations of 2020 and the constitution of Kenya 2010 by awarding 30% of tenders to the youth, people with disabilities, women and small and medium scale traders so as to promote social economic growth. The study also recommended that the organizations should have supplier forums to sensitize the disadvantage group on requirements and procedures of bidding. They should go an extra mile on educating them on how to use IFMIS procure to pay system when bidding with the county. It recommends that the Counties should cultivate a positive organization culture by paying attention to best practices such as; benchmarking and best practices sharing, change Management planning, adherence to ethical Employment Practices and conformance to the principle of Accountability in the conduct of their operations including but not limited to procurement processes. The research findings are expected to be beneficial to the county government management, procurement function and policy makers.

Another study was conducted by Njeru 2015 on factors affecting effective implementation of procurement practices in tertiary public training institutions in Kenya. The study revealed that, in Kenya, the inefficiency and ineptness of overall implementation of procurement practices in many tertiary public training institutions contributes to loss of over 50 million Kenyan Shillings annually. In addition, in over 50% of tertiary public training institutions, the quality and quantity of procured goods and services do not meet the raised specifications during tendering and the actual procurement expenditure is normally higher than the budgeted procurement funds. Njeru 2015, explained that, procurement expenditure could be minimized through effective implementation of procurement practices. However, none of the tertiary public training institutions has successfully managed to effectively implement procurement practices and this has led to increased procurement expenditure and high institutions operational costs. The general objective of the study was to determine factors affecting effective implementation of procurement practices in tertiary public training institutions in Kenya. A descriptive correlational research design was adopted and the target population comprised 40 tertiary public training institutions in Kenya. Stratified random sampling technique was applied to select a sample size of 35 tertiary public training institutions. Questionnaires were used as the main data collection instruments and were pretested using a pilot study for validity and reliability. Descriptive and inferential statistics data analysis results revealed that the employed procurement policies, supplier management strategies, inventory management methods, professional training and use of ICT based systems hampered effective implementation of procurement practices in over 80% of tertiary public training institutions in Kenya. It was concluded that supplier management followed by training and then procurement policies are the major factors that mostly affect effective implementation of procurement practices tertiary public training institutions in Kenya. The study recommendations included; improvement on the level of compliance with procurement regulations, adoption of effective supplier management techniques, application of inventory management techniques based on economic order quantity, implementation of better supplier selection strategies and finally training of procurement staff and integration of procurement functions with ICT based systems.

Paul (2020) did a study on the assessment of factors affecting procurement process in public sector at Arusha city council in Tanzania. The study aimed to assess factors affecting the procurement process in the public sector in Tanzania. The specific objectives were to examine

procurement practices that influence the procurement process at the Arusha city council, to assess the impact of effective supplier selection procedure towards effective procurement process at Arusha city council, and to determine challenges hindering effective procurement process at the Arusha city council. The study employed the explanatory research design and used the survey strategy. Also, the study used the concurrent mixed-method triangulation method which engaged a single study that deployed quantitative and qualitative data that are collected at the same time. The target population was made up of staff from 13 different departments. A sample of 41 study respondents was determined to be appropriate for the study. Primary data was collected from respondents through self-completed semi-structured questionnaires. The interview guide was used to collect qualitative data. Cross tabulation with Chi-Square Test and Fisher Exact Test was used to analyse quantitative data and content analysis was engaged for the qualitative data. The study found that procurement planning, Adoption of an E-Procurement system, supplier relationship management, effective communication, and procurement cost estimation are very important elements of the procurement practices that contribute to the effectiveness of the procurement process at Arusha city council. The study recommended that Arusha city council and other public organizations should make sure they hold on to best practices on procurement process with due consideration to national standards along with international standards on public procurements and formulate standardized checklists for the best practices in procurements. Top management at Arusha city council and other public organizations should fulfil their responsibilities effectively by providing prompt decisions relating to public procurements in their respective areas of authority. Approved funds for procurement needs should be provided adequately and timely to ensure the procurement process is carried out effectively.

Lyimo and Mrema 2022, conducted a study on factors affecting procurement practices in public procuring entities in Tanzania. In their study Lyimo and Mrema explained that, procurement is an essential component in the delivery of the services and functioning of various departments of the public entities. The study was carried out to assess the factors affecting procurement practices in public procuring entities: a case of Tanzania Electric Supply Company Limited (TANESCO). The findings revealed positive relationship between staff competence and Procurement Practices. The findings showed positive relationship between Resource Allocation and Procurement Practices. Also, the study unveiled that there is significant relationship between Inter-departmental

and procurement practices. This study recommends that, it is worthwhile that staffs be adequately trained and sensitized to boost the skills and competency levels required by staffs involved in the procurement process. The company would benefit if the management, support the procurement department by allocating more resources and encourage trainings to improve the skills and knowledge of the procurement staff hence embracing inter-department relationships.

Summary

This chapter has reviewed what other scholars have written about the effect of procurement policies on effective implementation of public procurement practices, management of inventory and its impact on effective public procurement practice implementation. From the literature that has been reviewed for this cause, it can generally be concluded that success of a procurement function in every organization is contingent on a number of factors, and these include: the enactment and observance of viable policies and regulations on part of the nation and organization respectively; proper management of the procurement inventory by an organization; recruitment of qualified and skilled human resource in the field of procurement and regular training of the procurement staff to update them on new innovations and skills in the field; and, adoption of the new innovations and ICTs that ameliorate the performance of procurement functions. It has been observed that professionalism, efficiency and transparency of the procurement system are augmented once these basic requirements are met, and this in turn leads to an improvement in the overall performance of the entire organization. Kipkemoi (2017) sums it up well with the conclusion drawn from his research study that proper structures and systems coupled with involvement of skilled and knowledgeable stakeholders in the procurement sector will ensure transparency, accountability, and will lead to reduced costs and improved quality and specifications. Eventually, this will contribute towards ameliorating the overall organizational performance in the long run.

CHAPTER 3: RESEARCH METHODS

Introduction

This chapter provides a description of the methods that were employed in the study. First and foremost, a statement of the problem that the present study is intended to address has been outlined to provide a lucid account of the reliability and effectiveness of the methodologies selected for the study in enabling the researcher to collect the data that will accurately reflect the nature of the problem at hand. The research problem that has given impetus to the present study are the implications of lack of adherence to public procurement laws and policies in Malawi. It is expected that the city assemblies will adhere to public procurement practices that have been put in place by relevant governing bodies (Blanchard, 2010). Subsequently, lack of adherence to public procurement practices among institutions falling within the public procurement systems has adverse implications on part of both the public and private sectors (Osei-Tutu, Badu, & Owusu-Manu, 2010).

Despite the procurement law being progressive in nature, non-compliance to the public procurement practices in public institutions still exists in large quantities; precisely, it has been estimated that the prevalence of non-compliance to recommended public procurement practices is as rampant as about 70 percent of most organisations worldwide as has been established by various audit reports (Mugambi, 2014). Nonetheless, research on the effects of firm performance of best practices of environmental management which are supposed to enable firms to simultaneously protect the environment and reduce costs has so far ignored the roles of existing firm resources (Christman, 2000). Eventually, an observation by Mahuwi and Panga (2014) alluded to the point that monitoring procurement activities, staff training and procurement planning are essential for public institutions.

A separate study carried out in Zambia by Chifuti (2020) found that the two factors that showed significant effect on procurement best practices are information and communication technology. Subsequently, it has further been observed that, in the case of Malawi, the government of Malawi continues to lose a lot of public funds through inappropriate standards in the process of procurement of goods and services aimed at promoting the well-being of the people (Ellis, Kutengule & Nyasulu, 2003). This development continues to worsen each and every year despite the government ratification of the law that enforces prudence concept in the process, practice and

procedure aimed at public goods and services acquisition. It is justifiably believed that this is caused predominantly by lack of adequate procedures that the government implements in order to monitor all sectors in the public procurement system, and consequently this lands the nation in increased poverty levels, more especially among the people in major districts of the country. In the same vein, a study conducted in Kenya seems to confirm this observation. The study was conducted by Ogubala, Mburu and Kiarie (2014), and its findings revealed that inadequate competencies of procurement staff in addition to lack of management support, ICT tools and budgeting procedures are the key factors that have grossly affected procurement planning, implementation and decision making. Besides Mutoro, Makokha & Mamusonge (2018) determined that service delivery had significant positive influence on procurement planning. This is further buttressed by an observation made by researchers in Ghana who conducted a study to explore the relevance of putting in place legal measures to check and guide operations to do with procurement in government or public institutions. Among these studies was one undertaken by Asante (2016) whose finding led to the conclusions that lack of expertise, political interference, weak institutional structures, inability to implement; monitor policies and laws, among other factors, are the most significant factors affecting procurement performance in 80 percent of public sectors in the country.

However, this is despite the continued support in the form of the subvention that the government allocate monthly to city assemblies in a quest of improving the socio-economic status of the rural and underserved communities. Poor adherence of public procurement practices results in inefficient public financial management system which retards national development, this has a problem as it leads to poor expenditure and debt management, corruption, non-transparent and discriminatory procurement procedures, ineffective debt management, low productivity and inefficient and loss of money hence leading to poor public service delivery.

The increased growing population in Malawi has resulted in the need for the country to provide for public service delivery to sustain its inhabitants, businesses and many sectors such health, education, infrastructure and many more. The need to provide such services has seen resources being abused leading to poor service delivery such as poor roads infrastructure, poor service delivery in schools and hospitals and hygiene problems in towns due to flaws in procurement processes of service provider. It is against this background that this study set out to

assess factors that influence adherence to and implementation of public procurement practices among city councils in Malawi. The study examined how procurement laws and policies have affected the effective implementation of public procurement practices in city councils in Malawi, and established the extent to which this impact can be deemed significant. Equally important to the present study is the quest to examine the strategies that have been adopted by the city councils to manage procurement inventories and determine how management of the said procurement inventories at city councils impacts on the implementation of the recommended effective public procurement practices in Malawi.

Furthermore, considering the salience of acquisition of minimum training in procurement among procurement practitioners as has been discussed and proven in the literature, the study also intended to investigate the levels of training acquired by the stakeholders within the city councils. Finally, the study sought to assess the level of system automation infrastructure within the district assemblies and find out what impact these facilities have on enhancing public procurement practice in Malawi. To achieve the forementioned goal, the present study adopted a two-pronged research design, in which both qualitative and quantitative approaches were used. This enabled the researcher to capture adequate and reliable data on adherence to recommended practices in procurement at City Councils in Malawi. Adoption of a two-pronged research design, apart from the relevance presented above, helped the researcher to carry out an effective triangulation intervention which enhanced the reliability of the data that was collected and the validity of the findings, interpretations of the findings and conclusions drawn from the said findings of the study. A more detailed account of the research approach and design has been presented in the sections, particularly dedicated to research approach and design.

In addition to research design and approach, the chapter also provides a detailed description of the population of the study. This refers to the entire group of people whom the study targeted and on whom the findings, interpretation of the findings and conclusions of this study will have to apply and have influence. The description included the demographic characteristics, roles and responsibilities allocated to their offices and minimum qualifications expected of occupants of the said offices. Special focus was paid on the roles and responsibilities in relation to the public procurement system and processes. This enabled the researcher to examine the skills and competences the office bearers had in relation to duties they were supposed to execute in the

procurement processes. The description of the population included the actual number of people in the population circle. The chapter also describes the research instruments and tools, and data collection tools that were engaged in the data collection exercise of the present study. Finally, the chapter will provide a description of ethical assurance measures taken by the researcher in the present study to ensure observance of all ethical considerations required of researchers. Selection of each method used in this study has duly been justified.

Research Approach and Design

This section of the chapter describes the research approach and design adopted in the present study.

Research Approach

The term research approach has been defined in its broadest sense as the systematic methods of conducting a research study, and a framework of procedures for investigating a problem and collecting and interpreting data on the said phenomenon (Cresswell & Plano-Clark, 2017). On their part, Creswell and Creswell (2018) described the term research approach as the plan and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. He further asserts that the approach to research involves philosophical assumptions as well as distinct methods or procedures. Three types of research approaches have generally been recognized by researchers, and these are qualitative, quantitative and mixed-methods approaches (Heyvaert et al., 2013; Creswell, 2014; Creswell & Creswell, 2018).

Qualitative research, to begin with, is an approach for exploring and understanding the meaning and interpretations that people attach or ascribe to a social problem as individuals or as designated social groups (Cresswell, 2015). These research studies are designed to provide the researcher a means of understanding a phenomenon by observing or interacting with the participants of the study (Denzin & Lincoln, 2011). Researchers that adopt the qualitative approach are interested in exploring and explaining phenomena as they occur in the natural setting. Thus, they study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (Kumar, 2014)). Those who engage in this form of inquiry support a way of looking at research that honours an inductive style, a focus on individual

meaning, and the importance of rendering the complexity of a situation (Grey, 2014; Robson, 2002). One of the greatest strengths of qualitative methods is that they have the potential to generate rich descriptions of the participants' thought processes and tend to focus on reasons why a phenomenon has occurred (Creswell, 2015).

Quantitative research, on the other hand, is often characterized by investigating commonalities across all teaching and learning of science (Fischer, Boone & Neumann, 2015). It is an approach for testing objective theories by examining the relationship among variables, which in turn, can be measured, typically on instruments, so that numbered data can be analysed using statistical procedures (Creswell, 2014). Quantitative research approach emphasises collecting and analysing information in the form of numbers and collecting scores that measure distinct attributes of individuals and organizations (Maree & Pietersen, 2007). Some scholars have used the dichotomies of induction versus deduction, subjectivity versus objectivity, and context versus generality as key features for drawing a divisive line between qualitative and quantitative research approaches. They point out that quantitative research approach is deductive, objective and general in the sense that it tests theory through observation and is oriented towards establishing a cause and effect relationship; it emphasises phenomena that can be measured in which case results do not depend on beliefs; and that the researcher is detached from the data as he relies on standardised protocols (Creswell, 2009; Holloway & Wheeler, 1996; Johnson & Christensen, 2008; Maree & Pietersen, 2007; Nieuwenhuis, 2007).

Mixed methods research approach, on the other hand still, involves mixing or combining quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (Collins, Onwuegbuzie & Sutton, 2006; Johnson & Onwuegbuzie, 2004). Burke and Onwuegbuzie (2005) indicate that mixed methods research is a natural complement to using either of the traditional qualitative or quantitative research methods in isolation. They view it as the class of research where the researcher combines or mixes qualitative and quantitative research techniques, methods, approaches, concepts or language in a single study. On the philosophical level, according to Burke et al. (2005), mixed methods research is a third wave, or third research movement that moves past paradigm wars by offering a logical and practical alternative. Creswell, Fetters and Ivankova (2004) argue that mixed methods research is more than simply collecting both qualitative and quantitative data; it implies that data are integrated, related, or mixed at some

stage of the research process. They further indicate that the underlying logic to mixing is that neither qualitative nor quantitative methods are sufficient in themselves to capture the trends and details of the situation. When used in combination, both qualitative and quantitative data yield a more complete analysis, and they complement each other. In pursuit of the same argument regarding the logic of mixed methods research, Johnson and Onwuegbuzi (2004) indicate that mixed methods research includes the use of induction which refers to the discovery of patterns, deduction which involves testing theories and hypotheses, and abduction which refers to uncovering and relying on the best set of explanations for understanding one's results.

Creswell (2014) justifies the perceived legitimacy and benefits of mixed methods as an approach in research in the social and human science as follows: Utilizing the strengths of both qualitative and quantitative research. Also, the problems addressed by social and health science researchers are complex, and the use of either quantitative or qualitative approaches by themselves is inadequate to address this complexity. The interdisciplinary nature of research, as well, contributes to the formation of research teams with individuals with diverse methodological interests and approaches. Finally, there is more insight to be gained from the combination of both qualitative and quantitative research than either form by itself. Their combined use provides an expanded understanding of research problems.

On their part, Sale, Lohfeld and Brazil (2002) attempted to provide the justification of combining qualitative and quantitative research methods in a study by pointing out that: Both approaches can be combined because they share the goal of understanding the world in which we live. They share a unified logic, and the same rules of inference apply to both. A combination of both approaches provides a variety of perspectives from which a particular phenomenon can be studied and they share a common commitment to understanding and improving the human condition, a common goal of disseminating knowledge for practical use. Both approaches provide for cross-validation or triangulation – combining two or more theories or sources of data to study the same phenomena to gain a more complete understanding of that phenomenon (interdependence of research methods) and they also provide for the achievement of complementary results by using the strengths of one method to enhance the other (independence of research methods)."

The concept of mixed methods approach has been defined, according to Kemper, Springfield, and Teddlie (2003), as an approach towards research which incorporates both the

collecting and analysis of both qualitative and quantitative data. They also underlined the fact that two different forms of data are typically gathered simultaneously or in some other way, and that the data is then analysed sequentially. Harping on the same note, to explain the mixed methods approach, Bazely (2003) offered detailed descriptions of the procedures and data types used by the qualitative and quantitative approaches that make up the mixed methods approach. In his account, Bazely (2003) stated that mixed method approach is an approach which utilises the use of mixed data which is in form of both numerical and textual form. Bazely (2003) stated concisely that a mixed methods research strategy is a sort of research in which a researcher uses both qualitative and quantitative research paradigms for different phases of a study.

In their assessment, Maree and Pietersen (2007) repeatedly emphasize the need of using a mixed method approach in a research project. They contend that combining qualitative and quantitative research broadens the understanding of the phenomena that researchers are investigating in their studies and enables them to use one approach to more fully comprehend, explain, or expand upon the findings from the other approach. This realization led to the adoption of the mixed methods approach for the current study, which enabled the researcher to accurately collect and interpret data to produce valid and reliable conclusions by leveraging the advantages of both qualitative and quantitative approaches while avoiding their disadvantages.

The Research Design

A research design, according to Creswell and Plano-Clark (2007), is the process used to gather, analyse, interpret, and report data for a study. The strategy for linking conceptual research issues with relevant and doable empirical research has been further illustrated as a research design. In other words, the study design determines how the data will be collected, how it will be analysed, and how it will be used to address the research question (Grey, 2014). This research used the explanatory sequential mixed method design as its research design and the same is explained in the below presentation.

The Explanatory Sequential Mixed Method Design

The explanatory sequential mixed method design entails collecting quantitative data first and then collecting qualitative data to help explain or elaborate on the quantitative results (Plano Clark, 2011). The rationale for this approach is that the quantitative data and results provide a

general picture of the research problem; more analysis, specifically through qualitative data collection is needed to refine, extend, or explain the general picture (Plano Clark, 2011). This entails that the design starts with quantitative data collection and analysis and then follows up with qualitative data collection and analysis, which leads to interpretation. In this design, a researcher first collects and analyses the quantitative (numeric) data, and the qualitative (text) data are collected and analysed second in the sequence and help explain or elaborate on the quantitative results obtained in the first phase. The second, qualitative phase builds on the first, quantitative phase, and the two phases are connected in the intermediate state in the study (Walker & Baxter, 2019). The rationale for this approach is that the quantitative data and the qualitative data and their analysis refine and explain those statistical results by exploring participants view in more depth. Therefore, the researcher in this case started with collecting quantitative data which was done by using a survey and questionnaires as a procedure and tool and the qualitative data was collected using in-depth interviews to the participants and a detailed explanation of the procedures is narrated in the below presentation

Survey research

Sukamolson (2007) argues that survey research includes the use of a prepared questionnaire and a scientific sampling technique to measure population characteristics using statistical techniques. It seeks information to determine the number of persons in the community who are capable of exhibiting a particular behaviour. According to Sukamolson (2007), a survey is a type of quantitative research that involves designing and administering questionnaires, sampling populations, and collecting information from them in order to better understand the behaviour or characteristics of the group or population being studied. Williams (2005) highlighted that survey research is a social scientific study that focuses on individuals, the essential facts about people, and their views, opinions, attitudes, motives, and behaviour.

Williams (2015) further emphasized that studies using survey research aim to statistically define a particular element of a given population, which entails examining the correlation between variables and qualities. Williams further argues that a subset of a population is sampled to reflect the characteristics, perspectives, and attitudes of the entire population, and that the results of this subset of the population are then used to represent the entire population. Principles of survey research design were applied in the current study in two distinct but recognizable ways. First, the

concept of using a questionnaire to collect data about procurement from the staff members involved in the process, such as the level of education attained in the field of procurement on the part of persons involved in the public procurement process, and to record attitudes of the said persons towards the procurement regulations practices enacted to govern. The survey methodology helped the current study to identify the population from which data was obtained, allowing for the generalization of the results to procurement practices across all city councils.

In depth interviews

In-depth interviewing is one of the qualitative research methods technique that involves conducting intensive interviews with a small number of respondents to explore their perspectives on a particular idea, program, or situation (Jacobvitz et al., 2002). For example, participants or staff that are associated with a certain program might be asked about their experiences and expectations related to the program, the thoughts they have concerning the program's operations, processes, and outcomes, including any other changes they perceive in themselves because of their involvement in the program. In-depth interviews are so much useful when a researcher wants to access detailed information about a people's thoughts and behaviours or want to explore new issues in depth. Interviews are often used to provide context to other data or to complement other data thereby offering a more complete picture of what happened in the program and why. The primary advantage of in-depth interviews is that they provide much more detailed information than what is available through other data collection methods, such as surveys. Interviews may also provide a more relaxed atmosphere for collecting data. Respondents may feel more comfortable having a conversation with a researcher about their program as opposed to filling out a survey.

This study used face to face interviews to understand why certain phenomenon illustrated in the questionnaire are the case. On the motives of conducting interview sessions was to understand why respondents adhere to procurement policies at city councils as it was stated in the structured questionnaires. The interviews also sought to understand the reasons why city councils have not yet adopted modern procurement technologies. Furthermore, the interview investigated more on staff training and inventory management.

Document Analysis

Document analysis is an organized method for studying or assessing written and digital documents. (Bowen, 2009). Similar to other analytical techniques used in qualitative research methodologies, document analysis calls for the data to be analysed and interpreted in order to elicit meaning, gain insight, and provide empirical knowledge. The text, words, and images in documents that have been recorded without the involvement of a researcher are the ones that are analysed to create meaning.

Document analysis entails skimming, reading, examining, and interpreting documents. This iterative technique combines content analysis and thematic analysis elements. The process of organising information into categories linked to the research's primary concerns is known as content analysis. Emerging themes serve as the categories for the analysis in thematic analysis, which is a method of pattern recognition within the data (Fereday & Muir-Cochrane, 2006). The procedure entails rereading and reviewing the data with greater care. The reviewer examines the chosen data more closely and uses coding and category development depending on the qualities of the data to find themes relevant to a phenomenon. Predefined codes may be used, particularly if the document analysis is an add-on to the study's other research techniques. For instance, the codes used in interview transcripts may be applied to document content. Data collected via various techniques is integrated using codes and the themes they provide. The researcher is required to be objective and sensitive when selecting and analysing data from documents. To derive findings from the document analysis, this study used content analysis.

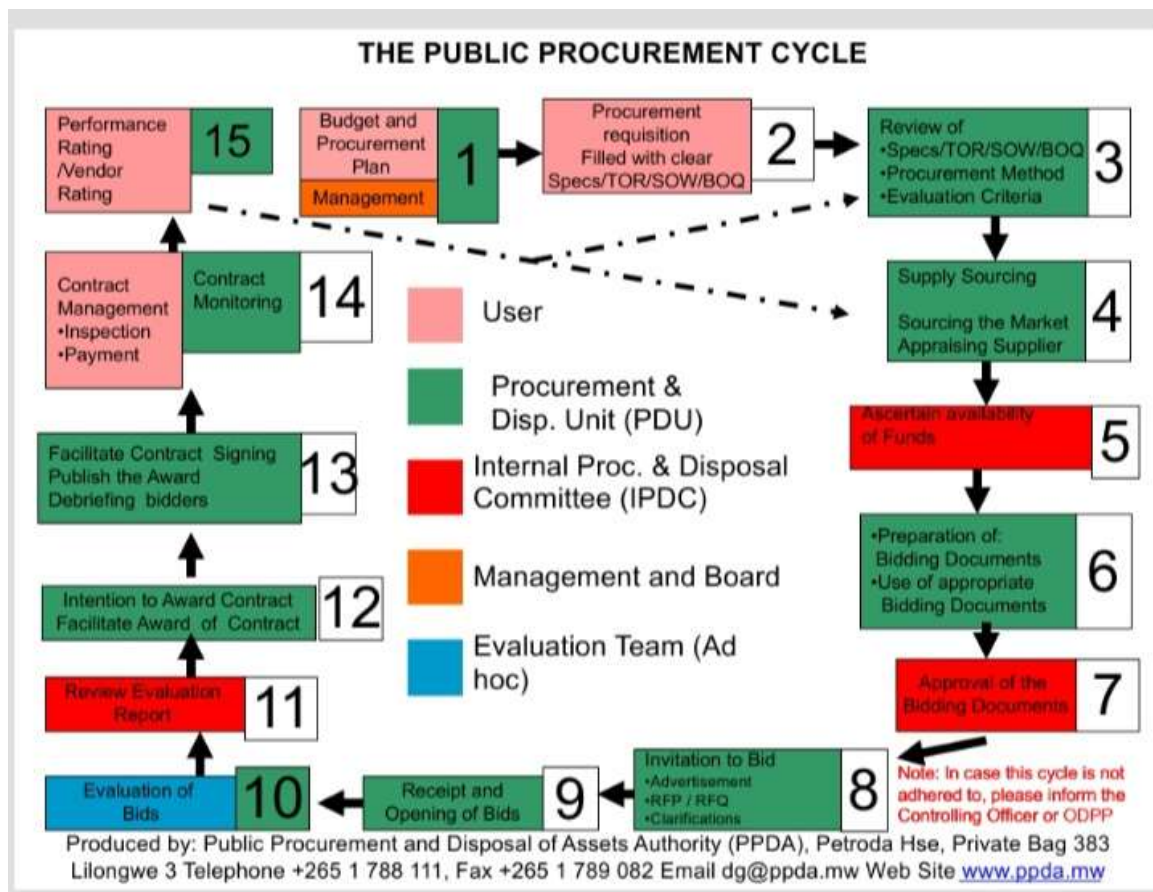
According to the 2017 Public Procurement and Disposal of Public Assets Act as well as the Public Procurement Regulations of 2020, public institutions are mandated to abide by public procurement practices that were outlined by the Act. This study used document analysis to understand if city councils abide by the recommended public procurement practices. The document analysis was also used to understand the type of inventory management techniques and modern procurement technologies that are used at the city councils. The study used content analysis to analyse the contents of the documents at city councils to confirm if they are in tandem with the Public Procurement Act and Regulations.

According to the Public Procurement and Disposal of Public Assets Act, a public procurement process follows the recommended fifteen steps. The public procurement regulations

of 2017 adds that each procurement process is mandated to have a file or folder which contains all the necessary documents for a particular procurement process. Figure 3.1 below shows the mandated or recommended steps in a procurement process.

Figure 3.1

The Malawi Public Procurement Process



Source: Public Procurement and Disposal of Assets Authority (PPDA)

The document analysis that was done was meant to assess if the city councils abide to the recommended procurement process. Procurement files that contain all the necessary files for the recommended procurement process were accessed to identify if the city councils follow the recommended or mandated procurement process. Failure to adhere to the mandated process would mean that city councils do not adhere to mandated public procurement process. The document analysis through content analysis technique looked for presence of recommended or mandated

documents in procurement process files as well as the presence of authorized signatures in the documents to ascertain adherence to public procurement practices. Furthermore, the document analysis was used to ascertain the presence or absence of technologies for procurement processes at the city councils as well as the inventory management techniques that are used at the city councils.

Population and Sample of the Research Study

The study's population constituted all public employees who participate in the procurement processes at Malawi's four city councils namely; Blantyre City Council, Lilongwe City Council, Mzuzu City Council, and Zomba City Council. The procurement and disposal units at all these councils consist of Senior Procurement Officers, Procurement Officers, Procurement assistants, procurement clerks and procurement interns. The Senior Procurement Officers' responsibilities include creating the procurement plan and preparing tender documents, among other things; throughout these procedures, the other procurement officers take on a variety of complementary duties. The procurement officer might be assigned a variety of tasks, including creating requests for quotes and tender paperwork. At each of these municipal councils, in addition to these officers who have received some formal procurement training, there is a committee called the Internal Procurement and Disposal Committee (IPDC). The Public Procurement and Disposal of Assets Authority (PPDA) Act of 2017 mandates the formation of an IPDC at every public institution to oversee all procurement activities, and these committees are established in compliance with that law. A designated chairperson, the director of finances, the senior procurement officer, and two to four members from different departments make up the committee, which can have up to seven members in total. The IPDC must have an uneven distribution of members to facilitate voting to end an impasse that results from a lack of unanimity in the rare instances when this occurs. There are 49 people working on procurement at the four city councils.

All 49 individuals who play a role in the procurement activities and related processes across all Malawian city councils were surveyed for this study. This included the Internal Procurement and Disposal Committee, Senior Procurement Officers, Procurement Officers, Procurement assistants, procurement clerks and procurement interns. This made it possible for the researcher to gather comprehensive data on all facets of the City Councils' procurement procedure. Second to that, Kothari, (2004) indicated that when the population size is small the researcher is encouraged

to collect data from all the members of the population. Eventually, this led to the decision to choose all 49 members who participate in the procurement operations at the City Councils as study participants. Hence in this case there was no need for drawing a sample as all 49 employees were selected as participants. The breakdown of the population is presented in Table 3.1 below.

Table 3.1 Distribution of respondents by district

CATEGORY OF PARTICIPANTS	BLANTYRE	ZOMBA	LILONGWE	MZUZU	TOTAL
SENIOR PROCUREMENT OFFICERS	1	1	1	1	4
PROCUREMENT OFFICERS	1	1	1	1	4
PROCUREMENT ASSISTANTS	2	2	2	2	8
PROCUREMENT CLERKS	1	1	1	1	4
PROCUREMENT INTERNS	2	1	1	1	5
MEMBERS OF THE INTERNAL PROCUREMENT COMMITTEES					
Chairperson (1)	6	6	6	6	24
Finance (1)					
Engineering (3)					
Stores (1)					
TOTAL	13	12	12	12	49

Only 21 of the 49 workers working for the City Councils who participated in procurement operations had gone through any sort of official training in the subject at the university level. The Senior Procurement Officers, who are members of the Chartered Institute of Procurers, have a master's degree in procurement and supply chain management. The Procurement Officers, who

have a bachelor's degree in the subject, and the Procurement Clerks, each have a diploma in procurement management.

Furthermore, the population of the current study included all documents that were developed for the aim of, or to facilitate, the procurement process at Malawian city councils between the years of 2017 and 2021. The documents that were revealed were those documents that were in the procurement files as well as the inventory management tools. According to the 2020 public procurement regulations, every procurement process is mandated to have a file which contains all necessary documents for the procurement process. Likewise, inventory management is mandated to have tools or documents that assist in record keeping.

Procurement process files are the ones that were reviewed to assess if procurement processes at city councils follow recommended or mandated procurement process. According to the Public Procurement and Disposal of Public Assets Act of 2017, the documents that are included in a procurement process file are as follows: The procurement plans, bid documents, tender opening minutes, evaluation report, minutes of IPDC meetings, minutes of negotiation meetings and procurement contracts or local purchase orders. The researcher in the current study was able to ascertain the degree to which procurement activities at city councils in Malawi are carried out in compliance with established public procurement practices through an analytical examination of the aforementioned documents. Likewise, an inventory management system is comprised of such documents as; the bin cards, goods receive note and the goods issue note. The technologies that are incorporated in procurement processes include electronic documentation of Local Purchase Orders (LPOs) and Purchase Requisitions.

Instrumentation of research tools

The main instruments that were used in the present study were the survey questionnaire for quantitative data collection and interview guide which involved one on one sessions for qualitative data collections. The study used structured questionnaires to collect quantitative data. The questionnaires were created to gather information on the participant's demographics, educational background, and actual data on the City Councils' adherence to public procurement rules.

Apart from questionnaires, data was also collected using interview sessions. Data was collected from participants through recording their voices after getting consent from participants. The researcher collected data until he reached saturation stage where participants provided

repeated answers. Data was then transcribed, and coding developed themes. This tool is one of the recommended tools for data collection in survey research (Young & Sercombe, 2010; Dörnyei, 2007; Singleton & Strait, 2009; Ponto, 2015). The interview sessions were intended to serve as follow-up questions to the responses participants provided to the questionnaire questions. The interview sessions were specifically meant to elicit an explanation for why certain events occurred as they did, or precisely as indicated by respondents, during the procurement process at the City Councils. For instance, some respondents provided information about procurement practices at the City Council, which the researcher interpreted as complete disregard for recommended procurement practices, so the researcher devised interview questions for each of the respondents who provided such information to determine why this was the case.

Study procedures and ethical assurances

This section of the chapter looks at the ethical issues recommended in this study's research studies. The moral principles that guide a person's behaviour are referred to as ethics. They are behavioural norms that distinguish between what is right and bad, as well as what is acceptable and undesirable behaviour (Parveen & Showkat, 2017). The importance of ethics in the research process cannot be overstated. At various stages of this process, researchers must address a variety of ethical concerns. In reality, ethical considerations can arise at any stage of the study process. (Bickman & Rog, 2009).

Researchers must accept entire accountability for their own research's ethical behaviour. Simply said, ethics is the obligation of the researcher. The safety, dignity, rights, and general well-being of the participants are the researcher's first and most crucial responsibilities (Parveen & Showkat, 2017). At various stages of the study process, researchers must address a variety of other difficulties. Both the researcher and the participants play a significant role. The rights of one are the obligations of the other. Researchers must protect the rights of participants and conduct their research from the participants' point of view (Baez, 2002; Shukla, 2018). According to the University of Sheffield, respect for the participants' dignity, rights, safety, and well-being is one of the most important considerations in research involving human subjects, sensitive personal information, and human tissue. Additionally, the institution highlighted that, there are two major levels at which all ethical issues that arise throughout the course of doing research may be addressed (Parveen & Showkat, 2017).

The University Research Ethical Committee's approval of the study, the methods used to maintain the subjects' confidentiality and anonymity, and other pertinent ethical questions regarding whether or not their participation in the study entailed any risk to them have all been taken into account. These are covered in depth in the sections that follow.

Approval of the University Research Ethics Committee

The purpose of this study was to identify factors that influence adherence to public procurement practices among staff involved in procurement processes in Malawian city councils. City Councils were used in this study to accomplish this goal. The University study Ethics Committee (UREC) approved this study endeavour before the data collection process. All proposed methods for interacting with and involving both human and non-human subjects had been submitted to the research ethics committee for thorough scrutiny, and the researcher did not begin data collection until the much-desired approval had been granted. The data collecting activity was carried out exactly as anticipated and in line with all the statutory conditions, as detailed in the following sections.

Confidentiality and anonymity of participants

Shukla (2018) distinguishes between the terms; privacy, anonymity, and confidentiality as they are employed in research. He emphasizes that privacy refers to the control of information obtained on subjects to deny other people who are not interested in the information access to it. He defines anonymity as the researcher's desire not to reveal the identities of study participants to himself or other people who that are of interest to the research report. Finally, he defines confidentiality as the necessity that all information collected on participants be treated in such a way that no one, directly or indirectly, can link the information to the subjects. According to Baez (2002), the confidentiality agreement serves three key purposes which are protecting the privacy of everyone involved in a study, developing rapport and trust with study participants, and upholding ethical standards and the integrity of the research process.

It is critical for the researcher to consider any negative consequences the study might have on any of the participants. Of course, even if the researcher attempts to foresee any potential ethical issues, unexpected unfavourable effects may arise, in which case the study should be terminated or adjusted. Researchers must also examine how they will protect the participants' privacy and

confidentiality. Although some participants may not think this is a major worry for them, it is normal for anybody participating in a study to expect some amount of confidentiality. (Dooly, Moore & Vallejo, 2017). Many ethical processes encompass the concepts of beneficence, nonmaleficence, justice, the protection of an individual's identity and dignity, and the truthful presentation of research findings. (Petrova, Dewing & Camilleri, 2015).

The researcher was especially concerned about the privacy, anonymity, and secrecy of all human participants participating in the study. Before enrolling participants in the trial, the researchers obtained their informed permission. The researcher attempted to provide a clear explanation of the nature and goal of the study to the subjects for them to comprehend their role in it. The human participants in the study were not forced to take part by threats, coercion, or any other form of inducement. The researcher further assured the participants that the information obtained about their otherwise private matters would be used exclusively for the purposes of the current study and that no part of the information would be used, in whole or in part, to fulfil any purposes other than those that are directly related to the study, nor would any part of the information be shared with other people in any way that was not in line with the main goals of the present study. Subjects were only given permission to participate in the study after indicating their desire to do so and receiving information about how their personal data will be used.

Additionally, the researcher adhered to the 26-point research ethics framework developed by Parveen and Showkat (2017) to obtain ethical assurance. To that end, the researcher ensured that the study did not cause any harm to subjects from the time data was collected until the findings were disseminated. There was no data modification, for example, at any stage of data management.

The researcher avoided plagiarism in every way possible by properly citing the original source of other people's information used in the write-up, among other things. This included avoiding self-plagiarism, which is the practice of copying one's own work without properly citing it. The researcher also avoided data fabrication, falsification, and misrepresentation by modifying photos, videos, or other types of illustrated work. To avoid research misconduct, the researcher should report the data honestly. The researcher has duly acknowledged all those who assisted him in any way during the investigation.

Publishing-related ethical considerations received attention as well. For instance, the researcher has not and will not submit the same manuscript to multiple journals or reviewers at the

same time, let alone submit a revised version of an already published research paper or article to a journal with minor changes or under a different title. Finally, the researcher has taken note of the need to provide the study's findings in a report that is simple to interpret.

To put it briefly, this section has examined the ethical standards that were observed in the current study to avoid doing anything that would damage the subjects and to make sure that the standard best practises that have been established in the research practise are followed. Respect for participant anonymity, privacy, and confidentiality, as well as making sure that data isn't misrepresented, manipulated, or improperly shared, were the main issues that were noticed during this quest.

Data collection

The goal of the study was to identify the factors that affect the adherence to public procurement practises among Malawian city council executives who are directly involved in the procurement system. To direct the data gathering strategy, the study developed clearly defined research objectives and research questions. The objectives of the study are:

- i. To examine the effects of procurement policies on effective implementation of public procurement practices in City Councils in Malawi;
- ii. To determine how management of inventory in City Councils impacts on effective public procurement practice implementation in Malawi;
- iii. To investigate the levels of training acquired by the stakeholders within the City Councils and their impact on implementation of public procurement practices in Malawi; and,
- iv. To assess the level of system automation infrastructure within the district assemblies and their impact on enhancing public procurement practice in Malawi.

To achieve these objectives, the study developed the following research questions to guide the data collection exercise.

- i. How do procurement policies affect effective implementation of public procurement practices in City Councils in Malawi?

- ii. To what extent does management of inventory at City Councils impact on effective implementation of public procurement practice at City Councils in Malawi?
- iii. How does level of training acquired by the stakeholders involved in procurement processes at city councils have any impact on implementation of public procurement practices at city councils in Malawi?
- iv. To what extent does automation of infrastructure in the procurement system have an impact on enhancing public procurement practice at city councils in Malawi?

With the aid of organised questionnaires and interviewing guides, both qualitative and quantitative data were gathered. For distributing questionnaires and conducting interviews, the researcher physically visited the City Council offices. To deliver surveys, the researcher went to the offices of the City Council in person. Respondents were allowed up to about two months to complete the questionnaire to eliminate possibilities of unnecessary pressure or burden on part of the respondents. To determine the degree to which public procurement practises were followed in the procurement processes involving the aforementioned documents, the researcher also examined procurement files that contain documents such as procurement plans, bid documents, tender opening minutes, evaluation report, minutes of IPDC meetings, minutes of negotiation meetings, and procurement contracts or local purchase orders. Data collection from these sources was in line with the research objectives and research questions presented above.

The first research question that the study set out to address was: How do procurement policies affect the efficient execution of public procurement practises in City Councils in Malawi? This research question was inspired by observations made by several scholars which suggest that enactment of vibrant procurement policies serves as a catalyst for effective performance of the procurement function of an organisation. There is a clear consensus among procurement studies scholars that there are real advantages to using efficient procurement procedures, particularly in that they give the government a way to implement social, environmental, and economic reforms, and that the biggest opportunity for misuse of public funds is through shady procurement practises in public institutions. Considering this, Ahmed, (2019); Emmanuel et al. (2021); Otieno, (2004); Thai, (2001) suggest that every other decision the government makes on procurement, regardless of level, should be made with the core or primary aim of enhancing the general welfare of the populace as well as guaranteeing that the private sector benefits from it. On the other hand, the

procurement procedure must withstand civil society's review. Due to this, decisions about public procurement must be based on a predetermined set of values, including accountability, openness, justice, and ethics (Ahmed, 2019; Emmanuel et al., 2021; Otieno, 2004; Thai, 2001).

Thai (2001) agrees that the fundamental elements of good procurement methods are accountability, competitive supply, and consistency. Accountability, according to Thai (2001), entails putting in place an effective mechanism that allows procurement bodies to spend their limited resources wisely and with the understanding that they are accountable to members of the public in the back of their minds. Thai continues to define competitive supply as the need that procurement be conducted through competition unless there are compelling reasons for single sourcing, whereas consistency emphasizes the equitable treatment of all bids regardless of race, nationality, or political affiliation. Thai (2001) adds that the procurement process should also maintain integrity by preventing malpractices such as bias, bribery, and corruption while awarding contracts. Furthermore, he argues that public organizations should base their procurement decisions on factual information, and that procurement practice should be responsive to the target society's objectives, expectations, and needs. Bowersox, Closs, and Cooper (2012) acknowledge the need of logistics management in the procurement process to ensure that procuring entities do not commit fraud. They define 'logistics management' as the art and science of managing and controlling the flow of goods, as well as the flow of goods, information, and other resources between the point of origin and the point of consumption, to meet the needs of customers.

Further supporting this argument is a study which was conducted in Tanzania by Kamchape (2020), which sought to establish the impact of procurement policy and procedures on the performance of supply chain of microfinance bank. The study was guided by five main objectives that sought to evaluate the role of procurement in the FINCA Microfinance Bank performance, and these were: to determine the extent of the procurement policy and procedures in the FINCA Microfinance Banks operations; to determine the impact of ethical practice in the performance of FINCA Microfinance Bank; to establish the effects of Supplier selection procedures FINCA Microfinance banks supply chain performance; to determine challenges that face Procurement Policies and Procedures implementation in FINCA Microfinance Bank; to assess the degree of compliance with procurement policies and practises; to ascertain the impact of procurement practises and regulations on supply chain performance; and, to ascertain the difficulties

encountered in the application of procurement policies and procedures in Tanzanian commercial banks.

The researcher in this study used a structured questionnaire to investigate whether respondents had any knowledge of the procurement policies that are currently in place in Malawi and the governing bodies that have been given the authority to oversee procurement activities in Malawi, to address the study's first research question. Respondents were also asked to list any procurement procedures they were aware of, clarify what they meant, describe how they should be used, and describe how they function within the City Council. The questionnaire also incorporated follow-up questions that aimed at determining the degree to which institutionalisation of these procurement governing institutions affected adherence to advised procurement practises by those involved in the City Council's procurement process. The researcher further planned an interview session with a few selected respondents to get answers to questions that needed further probing to help him get an accurate account of the relationship between the formation of procurement oversight bodies or the implementation of procurement policies, acts, and laws on one side and adherence to procurement practises on the other, depending on the responses that the respondents provided.

What influence does inventory management at City Councils in Malawi have on the successful implementation of public procurement practises? was the second research question that to be addressed by this research study. This question was motivated by several studies conducted across the world whose findings indicate that proper management of the inventory in both private and public entities will improve the performance of the organisation. Some of these studies have been presented below. Willy and Njeru (2014) investigated how procurement portfolio management affected the effectiveness of the industry. The study discovered that there was a significant association between effective portfolio management and procurement success, which showed that the presence of a portfolio has a favourable impact on institutions' procurement performance.

Thirdly, the study was created to provide an answer to the question, "How does the level of training attained by the stakeholders involved in city council procurement processes have any bearing on the implementation of public procurement practises at city councils in Malawi?" This question was created in accordance with the necessity in procurement considering that

procurement personnel receive frequent training on procurement related topics to keep them up to date on the most effective ways to operate in the sector. There are several studies which have been conducted to buttress the view that acquisition of formal skills in procurement through formal training renders procurement officers more competent, and this in turn translates in an improved performance of the procurement function of an organisation. Some of these studies have been presented below.

Ramkumar (2015) acknowledges the significance of procurement officers completing appropriate training in the field, including in-service refresher courses to educate officers with new methods and technology for conducting procurement tasks. This is essential given that technology is largely to blame for the efficiency and effectiveness of most activities, as well as the current levels of competitiveness in the commercial sector. To address the challenges confronting the procurement field and then improve organizational efficiency and productivity, the business world has resorted to more creative methods of ensuring that the procurement department's human resources have the necessary technical know-how to operate the new technologies that will help steer the organization towards its intended success.

Wanjiru and Chege (2020) embarked on a study which was intended to investigate the effect of employee skills on public procurement performance at National Youth Service, Kenya. To achieve its objective, the study adopted a descriptive research design using quantitative approach and a census method. A closed-ended questionnaire was used to collect primary data using drop and pick tactic. The data was analysed using descriptive and inferential statistics of Statistical Package for Social Sciences (SPSS version 21). The findings were presented in frequencies; percentages, mean and standard deviation were thematically presented in tables and figures. The study established that employee skills had a positive significant effect on public procurement performance. The study concluded that staff possess relevant procurement functionality skills, there is cross-function teamwork among staff, high level of integrity is embraced by employees, confidentiality of classified matters, this was to avoid conflict of interest, personnel had required procurement knowledge and employees had adequate experience in procurement processes, respectively. The study recommended that in-house training and coaching be promoted to cultivate stated organization culture such as behaviour, ideas, attitudes, values, habits, beliefs, customs, and language among employees.

Elijah and Athumani (2020) conducted a study in Tanzania which sought to assess the influence of staff competency on performance of Procurement Management Unit in public sectors in Tanzania, a case of Vocational Education and Training Authority (VETA) Head Office. The study assessed the experienced personnel, competent personnel and training of procurement staff on performance of procurement function at VETA head office, Dar es Salaam. The study used case study design whereby sample of 76 respondents were drawn by using Slovin's formula from the population of 120 employees. Primary and secondary data were collected by using questionnaire, interview and documentary review. Qualitative data were analysed using cases and examples while quantitative data were analysed and presented in tables, graphs, percentages, and frequency with the aid of SPSS version 16 and Microsoft excel. The findings revealed that, 97.20% of the respondents agreed that procurement performance influenced by experienced and skilled procurement personnel, but 2.80% of the respondents disagreed. Likewise, 83.40% of the respondents agreed that VETA employs competent and qualified procurement staff but, 16.6% of the respondents were neutral. On other hand, 97.20% of the respondents agreed that training of employees improves level of competency but, 2.80% disagreed. The study concluded that experience, competency and training of procurement staff have a significant effect on performance of procurement function at VETA. In this regard, performance of PMU at VETA depends on combination of these three factors. Performance in procurement function in this study was regarded in terms of timely delivery, quality goods and service and delivery of goods in right quantity. It is recommended that VETA should continue to provide training to not only to PMU staff but to other organs like Tender Board, User departments, accounting officer, etc. to enhance competency among players. Further recommended that, VETA should employ competent and professional employees in procurement section since competency has direct effect on performance.

Considering the findings of various studies on the importance of formal training on the part of procurement officers in as far as the performance of the procurement function of an organisation is concerned, the present study investigated how frequently procurement officers participated in any significant training, who planned and funded the training, and what knowledge they learned at such training sessions. The purpose of this was to ascertain whether the City Council contributes significantly to the training of procurement officers in accordance with the Procurement Act's

requirements. To gather information to address this research question, the researcher conducted questionnaires and interview sessions.

The study also attempted to determine the extent to which infrastructure automation in the procurement system has an effect on improving public procurement practises at Malawian city councils. This quest is responsive to the observation that automation of the procurement system enhances the performance of the procurement function of an organisation as the studies below have confirmed.

Patel (2017) conducted a study in Gujarat to analyse e-procurement practices in selected industrial manufacturing businesses. The idea that the industrial sector in India has a higher proclivity to adopt technology such as e-Procurement serves as the foundation for this study. The majority of research designs utilized by researchers have been exploratory, descriptive, and causal in nature. This research was based on the novelty of the technology used. A search of the literature with relation to India yielded minimal results. As a result, this descriptive study used a quantitative methodology, using a questionnaire as the instrument, to evaluate diverse e-procurement practices among a sample of manufacturing enterprises that used e-procurement. Data was gathered from 72 manufacturing industrial units in Gujarat, including the south, north, central, and Saurashtra regions. The Non-Probability Convenience Sampling technique was used to obtain data. The sample consisted of executive officers and managers involved in an organization's e-procurement activities. According to the findings, many manufacturing organizations have adopted the most recent ICTs utilized in e-procurement and have purchased appliances and equipment to support these advances. In terms of performance, organizations with the most advanced e-procurement systems had more vibrant procurement functions than those without such systems. Furthermore, it was shown that firms with active procurement departments outperformed those with less active procurement systems in terms of overall performance.

Wakim and Akker (2019) conducted a similar study on procurement technology adoption in Sweden. They investigated SPP in the context of the Swedish surgical equipment sector using Institutional and Power Dependence Theory. To obtain a comprehensive understanding of the phenomena under research, the study employed an exploratory research methodology and in-depth interviews with a variety of stakeholders. The study found that SPP primarily affects suppliers by mandating that they assess their own sustainability practises, participate in collaborative initiatives,

and make changes when they don't uphold the conditions of the contract. The biggest problem was a lack of resources, which made it difficult to follow up adequately, have meaningful dialogues with suppliers, and force procurers to make unsustainable purchases due to their limited spending power. Another significant obstacle was Sweden's leadership role in SPP on a global scale, which discouraged overseas suppliers from changing their sustainability policies.

Having realised that E-procurement plays an important role in achieving a firm's goals, in which case it is more than just a system for making purchases online, and that provides an organized way to keep an open line of communication with potential suppliers during a business process, Barasa, Namusonge and Okwaro (2017) carried out a study to investigate the Effects of E-Procurement on organizational performance of public organizations focusing on Bungoma County Government. The study revealed that E-procurement improves the performance of the County Governments in Kenya.

A study by Kawuki (2019) in Uganda which was intended to establish the impact of automated procurement on the performance of business in supermarkets indicated that procurement system automation has a very huge impact on improving the performance of business operations in supermarkets. The study was carried out with the knowledge that supermarkets all over the world are paying close attention to computerised procurement, which is one of developing component of supply chain management. This is attributed to the tough competition which is in the industry of supermarket. On the same note, there is a lot of pressure from customers on retail shops pertaining to; demand variability, need for customized services and products as well as reduced lead-time. It is therefore noted that, supermarkets will not only compete in reduction of costs only but also on how they can efficiently produce products and services. The main objective of the study was to analyse the automated procurement systems and performance of Jazz Supermarket in Bugolobi. This study used a descriptive research design. The study targeted staff members from Jazz Supermarkets in Bugolobi. The study used a census for the study because the target population was too small. On a larger note, in this study, data was analysed using descriptive statistics among which were frequency distribution tables and graphs. Correlation analysis as well as regression analysis were employed to assess the performance of Jazz supermarket. Regression analysis was used to determine the impact of e-procurement on Jazz supermarket's performance. The survey found that, more than any other technologies suggested to Jazz Supermarket, the

majority of their procurement operations were conducted via electronic mail and automatic identification bar-coding systems. For instance, most of branches sent emails with orders to the sales representatives of suppliers, which sped up delivery and the confirmation of whether or not the products were in stock. This made sure that email communication between supermarkets and their suppliers was regular and ongoing. Additionally, it was determined that time was saved, which helped retail chains acquire a competitive edge in the grocery sector. Additionally, when those systems were in use, the accuracy of the orders and deliveries of the products was preserved. The performance of the Jazz supermarket in Bugoloobi was significantly impacted favourably by automated procurement methods, bivariate correlation. Finally, the findings showed that the performance of Jazz supermarket and the independent predictor's degree of correlation (automation of procurement systems) were not strongly correlated because of a number of issues ranging from; high system implementation costs, sluggish user adoption of new automated procurement systems, lack of management support for new system adoption, poor networking and IT infrastructure, and insufficient staff training.

Madhdillou and Akbary (2014) described and provided examples of how e-procurement could help in Saudi Arabia by adopting and implementing e-procurement systems and applications in an organization's supply chain network, which could help create value and lower overhead costs associated with the procurement process. They view it as a given that e-procurement is essential to managing the supply chain, particularly considering the widespread use of outsourcing in today's global corporate climate. They conducted a study to determine how e-procurement can help in the creation of value, cost reduction, and increased profit from the procurement process. Only a few aspects of supply chain management were discussed in the paper because the purpose of the paper report was to review the literature that was already available on procurement and e-procurement. In the area of industrial engineering, the study found that e-procurement acted as a catalyst for improved organization performance. The study found that e-procurement helps to create value and lower expenses and overheads in supply chain management, which is one of the major advantages of implementing e-procurement innovations.

This quest is an attempt to investigate the rate at which the City Council has embraced current procurement technologies that have proven to improve proper procurement system management, as mentioned in the literature. Adoption and installation of procurement technologies

is one of the recommended public procurement practices. The study, therefore, sought to explore if the City Council has embraced any procurement technologies to facilitate the procurement process, and examine if there is any significant improvement in the performance of the procurement system with the introduction of any of the mentioned procurement technologies. Following that, the researcher sought procurement officers' feedback on the usefulness of automated procurement systems. Essentially, data on this research question was gathered using a questionnaire and research interviews. Document analysis was also employed.

To ensure validity of the data, document analysis was done as a supplement on the data collected through the questionnaire. This was carried out to do triangulation, which is the process of combining data from several sources in order to examine a certain social issue. A technique for improving the validity and trustworthiness of research findings is triangulation. Triangulation can assist ensure that basic biases resulting from the use of a single method, or a single observer, are addressed by combining theories, methods, or observers in a research study. Additionally, triangulation seeks to investigate and clarify complex human behaviour utilizing a range of techniques to provide readers with a more complete understanding (Cohen, Manion & Morrison, 2000; Joppe, 2000; Noble & Heale, 2019).

The four primary triangulation paradigms listed by Norman Denzin in 1978 were followed in the current study's triangulation. One of them is the following: using numerous data sources in a single study is known as data triangulation. The other three types of triangulation methods that are used in research are: methodological triangulation, theory triangulation, and investigator triangulation. Investigator triangulation refers to the use of numerous researchers or investigators to explore a certain phenomenon. Theory triangulation uses different viewpoints to interpret a study's findings (Cohen, Manion & Morrison, 2000; Joppe, 2000; Noble & Heale, 2019).

By using a variety of data collection techniques, including interviews, questionnaires, and document analysis, the researcher was able to increase the validity and credibility of the data that would be gathered, in accordance with Norman Denzin's recommendations. To ensure consistency across the board, the researcher also used triangulation to compare the effects of adhering to any public procurement practises on the performance of procurement systems reported by other researchers with the findings of the current study. However, to lessen the likelihood of the negative effects associated with the constraints of triangulation stated in the literature, the researcher was

not able to use all four of the Denzin-proposed triangulation features. Triangulation may not always be performed uniformly or consistently when employed as a strategy for merging research methodologies, according to some arguments. For instance, triangulation is said to make research more complex and time-consuming. Even worse, it has been noted that triangulation may not always sufficiently reduce issues with a particular research approach, and that there may be instances when comparing the results of two sources produces quite contradictory or conflicting results (Heale & Forbes, 2013; Murdock, 2019; Thurmond, 2001). In accordance with the research question, topic, and study design, the data that was gathered using the previously mentioned techniques and tools was processed and analysed using statistical tests, notably utilising the Statistical Package for the Social Science (SPSS) version 17.0.

Furthermore, the researcher ran tests to determine how much each of these features of public procurement practises contributed to improving the overall performance of the procurement system. Finally, the researcher investigated what public procurement practises are followed at the City Council and attempted to determine why procurement staff followed some public procurement practises while not following others. The primary goal of the study was to identify factors that influence the adherence to public procurement practises among procurement officials and all other individuals who actively participate in the procurement system at Malawian city councils. The data that was ultimately gathered provided an answer to this primary research question. By analysing the networks of correlations found in the study, they eventually assisted the researcher in reaching relevant conclusions about the variables that affect procurement officers' adherence to recommended public procurement practises

Data analysis

Following the mixed method approach, this study employed both qualitative and quantitative analysis procedures. The study used content analysis to understand factors that affect adherence to public procurement policies at city councils in Malawi. Respondents were asked to mention factors that they think influence adherence to procurement policies at city councils in Malawi. Verbatim was quoted to illustrate some of the responses from the respondents. As part of qualitative analysis, a document analysis procedure was also undertaken as part of a triangulation method to confirm some of the responses from the study participants.

Furthermore, regression analysis was done for each objective. The regression analysis was done to establish the relationship between dependent and independent variables for each objective. Findings from the regression analysis has been presented in the next chapter. Lastly, descriptive analysis of the characteristics of the respondents was also presented.

Summary

This chapter aimed to give a description of the research methodologies that were used. The problem that the study was meant to solve was stated at the beginning. Additionally, the problem statement has been provided as clearly as possible to give a clear account of the validity and efficacy of the methodology used for the study in enabling the researcher to gather data that will appropriately reflect the nature of the problem at hand. The consequences of Malawi's lack of adherence to procurement regulations and policies are the research problem that inspired this study.

The chapter has also covered the study's research methodologies and design. This section explained the several types of research designs used in the current study and provided examples of each. The study also used a survey research methodology. Sukamolson (2007) defines survey research as the use of a prepared questionnaire and a scientific sampling technique to quantify specific demographic characteristics using statistical techniques. It seeks information to determine the number of persons in the community who can exhibit a particular behavior. According to Sukamolson (2007), a survey is a type of quantitative research that entails questionnaire sampling, questionnaire design, and questionnaire administration in order to collect data from the group or population being studied, which is then analysed to learn more about their behaviour or characteristics. The study also used the sequential explanatory research design as a mixed method research design which collected quantitative data that was used to build on the collection of qualitative data.

Additionally, the chapter covered the study's demographic, sample, and sampling methods. All public employees who participated in procurement processes at Malawi's four city councils made up the study's population. In terms of instrumentation, the survey questionnaire, interviews, and a checklist for document analysis were the key tools used in the current investigation. The chapter has also covered the ethical issues the researcher thought about while carrying out this investigation. The researcher paid close attention to several issues, including participant

confidentiality and anonymity, as well as the necessity to safeguard participants from injury and the prohibition against data manipulation. The chapter also discussed the data collection methods that were employed in the research. The main methods for gathering data were a questionnaire, interviewing techniques, and document analysis. The chapter also discussed the use of triangulation to improve the reliability and validity of the data.

CHAPTER 4: DISCUSSION OF RESEARCH FINDINGS

Introduction

The goal of this chapter is to present the study's findings. The study's main objective was to investigate the characteristics that motivate procurement officers at Malawi's four city councils to follow best practices when performing their jobs. In order to attain this broad goal, four objectives were pursued which are to: examine the effect of procurement policies on effective implementation of public procurement practices in city councils in Malawi; determine how management of inventory in city councils impact on effective implementation of public procurement practices in Malawi; investigate the influence of levels of training in the field of procurement acquired by officers who are actively involved in the procurement activities of the city councils on effective implementation of public procurement practices in Malawi; and finally, assess the level of system automation infrastructure at the four city councils in Malawi and their impact on enhancing public procurement practice in the country. The chapter begins with a summary of the standards that were used by the study to secure and determine the reliability of the data that was gathered for this investigation. Second, the legitimacy and dependability of the data have been covered throughout the chapter. Additionally, the data has been presented in a systematic manner utilizing graphic organizers like charts, graphs, and tables. This has been followed by an objective evaluation and analysis of the data. The chapter closes with a summary of its contents.

Trustworthiness of the Data

In the context of research, trustworthiness, according to Polit and Beck (2014), is the level of assurance in the data gathered for a study, its interpretation, and the procedures employed to acquire the said data to ensure the quality of a study. It results from the researcher's conscious attempts to manage the study's internal validity, which include, among other things, assuring the accuracy of the instruments utilized. Trustworthiness increases people's belief in the validity of research study findings, which eventually persuades them to accept the research findings and use them in critical decision-making processes such as policy-making and following research studies. (Cohen, Manion & Morrison, 2018; Kothari, 2004; Polit and Beck, 2014). According to Williams (2005), triangulation is one of the ways for obtaining credibility in a research project. To increase

confidence and reduce the possibility of error, the triangulation method entails the employment of numerous theories, methodologies, and procedures in data collection while researchers investigate a phenomenon (Cohen, Manion & Morrison, 2018; Williams, 2005).

The current study uses triangulation to ensure the reliability of its results. To assure the validity of the results, this was initially accomplished by using a mixed-methods approach to research the phenomena, drawing on the concept of paradigm triangulation. To explore and examine different aspects of the data relating to factors that influence procurement officers at the four city councils to follow advised public procurement practices, the researcher was able to use both qualitative and quantitative research designs thanks to paradigm triangulation. For instance, the researcher used a survey to gather numerical data from participants using questionnaires, and on the other hand, face-to-face interviews, a qualitative research methodology, were used to support the researcher's investigation into the complexity of procurement systems in depth and detail which is in line with what Gustafsson's (2017) highlighted. Therefore, this enabled, the researcher to be able to gather information on each stage and phase of the procurement process and make insightful deductions about trends in the purchase patterns. Using this paradigm, the following procurement-related issues were examined: automation of the procurement process; creation of a clear and transparent procurement process; establishment of a central contract and documentation hub; use of data to optimize inventory; application of a multi-sourcing strategy; creation of strong supplier relationships; and provision of useful training to the procurement team. Further to that regression analysis was done by the researcher to manage data collected using the above techniques.

The researcher was able to gather a sizable amount of data using a two-pronged strategy, from which precise conclusions could be formed. To gather a wide range of information that will accurately allow the researcher to make significant connections and draw reliable conclusions about adherence to procurement standards, the study used a structured questionnaire, face-to-face interviews, and document analysis. In addition to that, triangulation was used to define the study's scope in terms of the locations where data was gathered. The Blantyre City Council, Lilongwe City Council, Mzuzu City Council, and Zomba City Council were the four city councils that participated in the study. These cities are typically spread out, rather far from one another. For example, the distance between Mzuzu and Lilongwe is 355 kilometres, while Blantyre to Lilongwe

is 315 km away and Mzuzu and Blantyre are over 600 km apart. Only Zomba and Blantyre are nearby, separated by a 70-kilometer distance. These cities are found in different locations among individuals who have distinct characteristics, notably in terms of ethnicity. This element was considered by the researcher to guarantee that it did not have an impact on the study's outcomes. Triangulation, according to Williams (2005) and Cohen, Manion, and Morrison (2018), helps to mitigate biases and limits that overreliance on a single method may have on the reliability of study results.

Reliability and validity of data

The notion of validity has been described as demonstrating that a specific instrument evaluates what it intends, purports, or claims to measure, or that an account truly represents the characteristics that it is meant to describe, explain, or theorise. (Cohen, Manion & Morrison, 2018). It speaks to a research study's conceptual and scientific soundness, and its main goal is to improve the accuracy and usefulness of results by removing or regulating as many confounding factors as possible, thereby allowing for greater confidence in the results of a given study (Marczyc, DeMatteo & Festinger, 2005).

Cohen, Manion, and Morrison (2018) argue that researchers should make sure that the tools they employ in their individual studies demonstrate unquestionable soundness to the greatest extent possible, especially those tools that are used to measure abstract concepts like intelligence, creativity, anxiety, motivation, extraversion, and empathy for which there are no natural measures or units. Internal validity and external validity are the two primary types of validity that have been identified (Marczyc, DeMatteo & Festinger, 2005). Internal validity is the capacity of a research design to disprove or render implausible alternative explanations of the findings, thereby proving that the independent variable was directly accountable for the effect on the dependent variable and, ultimately, for the findings of the study (Marczyc, DeMatteo & Festinger, 2005). On the other side, external validity refers to how generalizable research study findings are (Cohen, Manion & Morrison, 2018).

Validity was attained by using a variety of data gathering tools, such as face-to-face interviews and structured questionnaires. The researcher was able to certify that validity was obtained in the study because of the high degree of consistency shown by the data gathered throughout the pilot study. Additionally, to prevent selection biases, the researcher gathered data

from all the officers who were actively engaged in the procurement activities in all four city councils in Malawi. As a result, attrition was not a problem because the researcher made sure to visit every respondent at a time that worked for them to guarantee a 100% response rate. Again, this increased the reliability of the data.

Pretesting of data collection tool

As advised by Marczyc, DeMatteo, and Festinger, the researcher in the current study ensured that all methodologies, procedures, and instruments used in the study were standard, measured what they were intended to assess, and were therefore valid. (2005). To ensure the validity of the questionnaires, the researcher ran a pretest of the data collection tools test with 25 percent of the study's participants before embarking on the actual data collection exercise for the study. The primary purpose of the pretesting exercise was to assist the researcher to assess the degree of question clarity, the volume of the questionnaires, participant readiness to supply the desired data, and the rigorousness of the questionnaires to get the required data. Pretesting of data collection tools helps to reframe questions on the questionnaire where necessary depending on the responses that the participants gave. The pretesting exercise gave the researcher the chance to get rid of language problems such structural ambiguities, strange or ambiguous terms, and the like. Additionally, the researcher revised the structures that didn't appear to accurately gather the data needed for the current investigation.

Results

The study's findings are presented in this section in accordance with the research questions. The first part of the findings presents the effects of procurement policies on effective implementation of public procurement practices; the second part presents the impact of effective management of inventory in a procurement system on the implementation of procurement practices; thirdly, the results present the impact of level of formal training in procurement on the implementation of procurement practices; and finally, the results present the impact of level of system automation infrastructure on enhancing public procurement practice in city councils. However, before presenting the actual data, the section has offered a description of the response rate and demographic features of the respondents.

Response rate and demographic characteristics of respondents

The response rate and the respondents' demographic makeup have been described in this section. Such characteristics as gender, age, education level, job experience with city council, and status in the procurement system were pertinent to the current study.

Response rate

A total of 49 questionnaires were administered by the researcher. All the questionnaires were satisfactorily completed and returned. The researcher further managed to hold the interview sessions with all the 49 respondents which represents a 100% response rate.

Distribution of respondents by gender

Respondents were required to indicate their gender. Out of the 49 respondents, 35 were male and 14 were female, which means that 71.43% of the respondents were male, while 28.57% were female. This data has been presented in the Table 4.2 below

Table 4.2

Gender of respondents

Gender	Frequency	Proportion (%)
Male	35	71.4
Female	14	28.6
Total	49	100

Distribution of respondents by age

The study further sought to establish the age of respondents. Four main age brackets were devised ranging from 25 to over 55. The age categories were marked off at an interval of 10 years. Findings show that 13 respondents (26.53%) were aged between 25 and 35, while 17 respondents (34.69%) were aged between 36 and 45 years, and 10 respondents (20.41%) belonged to the 46 to 55 years old category. Only 9 respondents (18.37%) were aged above 55. Outcomes of age distribution have been presented in the Table 4.3 below.

Table 4.3*Age distribution of respondents*

Age	Frequency	Percent	Valid Percent	Cumulative Percent
25 to 35	13	26.5	26.5	26.5
36 to 45	17	34.7	34.7	61.2
46 to 55	10	20.4	20.4	81.6
Above 55	9	18.4	18.4	100.0
Total	49	100.0	100.0	

Respondents' highest level of education

The researcher also required participants to indicate their highest level of formal education. Five levels of tertiary education were recognised for the purposes of the present study, and these were professional certificate, diploma, bachelor's degree, chartered qualification, master's degree, and doctoral degree. None of the respondents indicated professional certificate and doctoral degree as their highest qualification. Diploma was indicated as the highest qualification among 8 respondents (16.33%), while there were 30 respondents with a bachelor's degree (61.22%). Only 4 respondents (8.16%) possessed a chartered qualification in procurement, marketing or in accounting, whereas master's degree was indicated by 7 respondents (14.29%). Data for this item has been presented in the Table 4.4 below.

Table 4.4*Respondents' highest level of education*

Qualification	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	8	16.3	16.3	16.3
Bachelor's degree	30	61.2	61.2	77.6
Chartered qualification	4	8.2	8.2	85.7
Master's degree	7	14.3	14.3	100.0
Total	49	100	100	

Distribution of respondents by work experience

The study set out to determine respondents' years of service at their respective city councils, particularly in the procurement section. Duration of service was categorised into four levels ranging from 1 to above 15 years. In the category of 0 to 5 years, there were 10 respondents (20.40%), whereas in that of 6 to 10 years there were 19 respondents (38.78%). Fourteen respondents (28.57%) had a work experience of between 11 and 15 years, while 6 (12.24%) had worked at the city councils for more than 15 years. The Table 4.5 below presents results on the duration of service among respondents.

Table 4.5*Respondents' level of work experience*

Work Experience	Frequency	Percent	Valid Percent	Cumulative Percent
0 to 5 years	10	20.4	20.4	20.4
6 to 10 years	19	38.8	38.8	59.2
11 to 15 years	14	28.6	28.6	87.8
More than 15 years	6	12.2	12.2	100
Total	49	100	100	

Position in the organisational structure

Respondents were also asked to indicate their position or rank in the organisation. This was classified into four categories; internship; clerical services, middle-level management, and top-level management. Among the respondents, there were 7 interns (14.28%), 9 procurement clerks (18.37%), 19 middle-management officers (38.78%) and 14 top-management officers (28.57%). This information has been summarised in the Table 4.6 below.

Table 4.6*The position of the respondents in the organisational structure*

Position	Frequency	Percent	Valid Percent	Cumulative Percent
Interns	7	14.3	14.3	14.3
Procurement Clerks	9	18.4	18.4	32.7
Middle management officers	19	38.8	38.8	71.4
Top-management officers	14	28.6	28.6	100
Total	49	100	100	

Data presentation

The data that was collected for the current study was analysed and has been presented in response to the research objectives and in the order in which these objectives have been presented in the study. First, the researcher determined whether there was any substantial level of adherence to procurement processes at city councils before identifying the factors that encourage procurement officers to follow these recommended processes in the field. To determine degrees of adherence to procurement practises, a descriptive analysis was performed using SPSS. This was supplemented with a qualitative study approach that employed interview sessions to uncover the elements that drive procurement officials to follow procurement practises. A descriptive analysis was conducted which was then followed by a regression analysis to determine the extent to which each of the identified factors affects officers' compliance to procurement practises.

Observance of public procurement policies at the city councils

The study set out to establish the effects of enactment of procurement policies on the effective implementation on procurement practices at the city councils in Malawi. The researcher sought to determine which policies were in force and were observed to what degree at the city councils. The researcher asked respondents to give their ratings of statements on procurement policies on a Likert scale to determine the extent to which each of the policy statements is observed at the city councils. The scale ranged from 1 (strongly disagree) to 5 (strongly agree). In between, there were three options: 2 (disagree), 3 (neutral) and 4 (agree). Data collected for this objective is presented in Table 4.7 which shows selected procurement policies and how much respondents believe each of these policies is observed at the city councils. The study has revealed that 46.7% of respondents agree and 42.7% strongly agree that procurement processes at the city councils observe procurement policies. Collectively, about 90% of respondents indicated that the city councils adhere to public procurement policies. The results are illustrated in Table 4.7 below.

Table 4.7

Level of observance of public procurement policies at the city councils on a scale of 1 to 5

Procurement Policy	Percentage				
	1	2	3	4	5
Procurement processes are transparent			4.1	67.3	28.6
The Council has a centralised contract and documentation hub			2.0	30.7	67.3
There is open competition during bidding processes			6.1	63.3	30.6
Ad hoc evaluation teams always evaluate bids			4.1	61.2	34.7
Regulatory monetary thresholds for procurement functions are always enforced			16.3	46.9	36.8
There is no discrimination when evaluating bids and awarding contracts		2.0	12.2	55.1	30.7
Anonymity is observed when evaluating bids		4.0	8.2	53.1	34.7
No procurement contract between City Council and its employees	2.0	10.2	18.4	28.6	40.8
No procurement contract awarded to relatives and friends	2.0	10.2	20.4	38.8	28.6
Procurement is done by means of open tender proceedings		2.0	8.2	42.9	46.9
ACB is always involved in single source procurement	2.0	2.0	10.2	44.9	40.9
Invitations to tender are always advertised in at least two popular newspapers				14.3	85.7
All interested eligible bidders are always issued bid documents			2.0	38.8	59.2
Procurement processes are regularly audited				67.3	32.7

Use of recommended inventory management practices in public procurement practices at city councils

Secondly, the study intended to assess the extent that the procurement processes at the city councils under examination follow recommended inventory management practises, as well as the variables that motivate them to do so. The researcher singled out five aspects of inventory management to achieve this objective, and these are: types of inventories at the city councils; inventory management tools and strategies; inventory management principles; inventory management policy, and inventory management technologies. Most of the respondents (95.9%) indicated that the city councils possess only two types of inventories on a regular basis, and these are work-in-process and maintenance, repair and operations. These inventories are predominantly procured using the just-in-time (JIT) strategy or ‘instant buy and use’ whenever a requisition by user is made. Thus, the city councils rarely stock their inventories. Only 4.1% of the respondents provided a neutral answer. A descriptive analysis was carried out to determine the degree to which these inventory management practices have been adopted at the city councils. Outcomes of this analysis are presented in Table 4.8 below.

Table 4.8

Adoption of inventory management practices at the city councils on a scale of 1 to 5

Inventory management technique	Percentage					Total
	1	2	3	4	5	
The council has strong inventory management tools and strategies in place	67.4	20.4	12.2			100
Procurement is guided by vibrant inventory management principles	16.3	51.0	24.5	8.2		100
Inventory management is regulated by sound policies			4.1	53.1	42.8	100
Inventory management is enhanced by modern technologies	70.4	25.5	4.1			100

Level of formal education in procurement attained by staff in the IPDC at the city councils

Further to the objectives discussed in the foregoing sections, the study set out to establish the highest level of formal training in procurement attained by public officers involved in the procurement systems at the four city councils, and to examine the efforts made by the city councils to equip officers involved in the procurement systems with vibrant skills and competences in procurement to render them knowledgeable and relevant in the present day and age through formal training. This is in accordance with the requirements set in procurement practices that organisations and institutions should regularly provide or facilitate provision of formal training in relevant aspects of procurement to its officers involved in the procurement system. The study revealed that most officers (69.4%) who were involved in procurement activities at the city councils did not have any formal training in procurement. Only 8.2% of the respondents had a diploma, while 12.2% had a bachelor's degree, and 8.2% had a master's degree in procurement and supply chain management. Finally, 2.0% of the officers indicated that they possessed a chartered certificate in procurement. Most of the respondents 89.9% indicated that the city council does not provide any formal training to its officers involved in procurement activities apart from random basic orientation to procurement sessions which are meant to equip laypersons involved in the procurement systems with basic procurement skills. Only 6.1% of the respondents were afforded an opportunity by the council to attain some formal training in procurement. The researcher carried out a descriptive analysis to realise the outcomes presented in Tables 4.9, 4.10 and 4.11 below.

Table 4.9*Highest qualification in procurement*

Highest qualification	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	4	8.2	8.2	8.2
Bachelor's degree	6	12.2	12.2	20.4
Chartered procurer	1	2.0	2.0	22.4
Master's degree	4	8.2	8.2	30.6
None	34	69.4	69.4	100
Total	49	100	100	

Table 4.10*Scholarships in procurement sponsored by the city council*

Scholarships	Frequency	Percent	Valid Percent	Cumulative Percent
None	2	4.1	4.1	4.1
Simple orientation to procurement	44	89.8	89.8	93.9
Diploma	2	4.1	4.1	98.0
Bachelor's degree	1	2.0	2.0	100
Total	49	100	100	

Table 4.11*The city council sponsors formal education of staff in procurement*

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	45	91.8	91.8	91.8
Neutral	1	2.0	2.0	93.9
Strongly agree	3	6.1	6.1	100
Total	49	100	100	

Level of adoption of procurement technologies to enhance public procurement at city councils

Finally, the study intended to determine the extent to which city councils use automation infrastructure to improve the performance of the procurement system. Respondents were asked if their city councils use any of the following technologies in their procurement systems: online bidding, internet marketplace, electronic data interchange, E-procurement, E-mail, cloud-based procurement software, micro-services and low-code platforms, process automation and self-service portals. According to the results, none of these procurement technologies are now in use at city councils. The results have shown that, all respondents (100%) either disagreed or strongly disagreed that any of the technologies had been implemented. The results of the descriptive data analysis are shown in the Table 4.12 below.

Table 4.12

The city council has adopted the following procurement technologies on a scale of 1 to 5

Procurement technology	Percentage					Total
	1	2	3	4	5	
Online bidding	69.4	30.6	0	0	0	100
Internet market place	79.6	20.4	0	0	0	100
Electronic data interchange	71.4	28.6	0	0	0	100
Electronic procurement	87.8	12.2	0	0	0	100
Electronic mail	81.7	19.3	0	0	0	100
Cloud-based procurement software	93.9	6.1	0	0	0	100
Micro-services and low-code platforms	83.7	16.3	0	0	0	100
Process automation	77.6	22.4	0	0	0	100
Self-service portals	83.7	16.3	0	0	0	100

To establish the validity of the data presented above, which was acquired by questionnaire, the researcher used a triangulation technique in which he performed a document analysis exercise. The document analysis exercise included the evaluation and analysis of a sample of procurement documents such as procurement plans, procurement requisitions, procurement contracts, bid documents, IPDC minutes documents, and Local Purchase Orders. This was done to ensure that the information provided by respondents accurately reflected what was happening in the procurement systems of the city councils under study.

Qualitative analysis

This section on qualitative data analysis contains qualitative data gathered to supplement the quantitative data mentioned above. The researcher conducted interviews with respondents to determine the elements that encourage procurement officers to follow procurement practises. For

example, after observing high levels of adherence to procurement practises in terms of policy observance and low levels of adherence to procurement practises in terms of adoption of procurement technologies, implementation of inventory management techniques, and poor capacity building mechanisms, the researcher asked respondents to explain why this was the case. The responses that were given regarding each of the aforementioned questions are shown in the section below. These results also include a description of the outcomes of the document analysis.

Results from interview sessions were subjected to thematic analysis whilst those from document analysis were subjected to content analysis. Results from interview sessions were analysed to answer questions that were derived from each objective. For the first objective, the interview sessions answer why participants in the study observe procurement policies as they did. The researcher analysed the themes from the responses of the respondents to come up with the results in the themes below.

Factors that promote observance of procurement policies at city councils

The researcher asked respondents to explain why they saw procurement policies the way they did after looking over their questionnaire replies and after analysing the procurement documents. Table 4.13 below contains the data that was gathered to answer this question.

Table 4.13

Factors that influence officers to adhere to procurement policies at city councils

Serial	Factor
1	To meet ethical requirements of the profession
2	To avoid corruption
3	To improve the overall performance of the City Council
4	To avoid the stiff punitive measures for violating the policy
5	To ensure high integrity in our operations
6	To increase competition among SMEs and other enterprises

Data that was collected from participants indicated that there are several factors that influence officers to adhere to procurement at city councils. Majority indicated similar factors such

as to avoid corruption, to meet ethical requirements, to avoid stiff punishments once they violate the policies and to increase integrity. From one-on-one interviews, one female participant coded 34 explained as follows:

³⁴Factors that influence observance of procurement policies at city council is to improve the overall performance of the city councils. This is very important for each council to follow. The main purpose for this is to avoid corruption and avoid stiff punitive measures once a staff violates the policies.

Factors that influence use of inventory management practices

The factors that impede respondents from implementing recommended inventory management practices in their procurement activities were also questioned about. The data gathered for this objective is shown in Table 4.14 below.

Table 4.14

Factors influencing adoption of modern inventory management practices at city councils

Serial	Factor
1	Too costly to adopt
2	Lack of technical expertise to operate the technologies
3	Operations of our procurement system are dictated by the central government system which has not adopted the modern system
4	Lack of political will to automate the system
5	Lack of political will to build the capacity of procurement personnel

After data was collected from participants, one participant coded 20 illustrated as follows:

²⁰There are several factors that influence adoption of modern inventory management practices at city councils. Some of them include lack of technical expertise to operate the technologies since majority of staff do not have chance to attend procurement trainings. Apart from this, operations of our procurement system are dictated by the central government system which has not adopted the modern system as such this creates a lot of challenges. There is also

lack of political will to automate the system, this is mainly from top management and also lack of political will to build the capacity of procurement personnel so that they can increase their knowledge in their field.

Factors that influence capacity building programmes for procurement officers at city councils

The researcher also sought to establish factors that retard staff development activities at the city councils to enable procurement officers attain formal training in procurement at the city council to improve their performance. Data for this objective has been illustrated in Table 4.15 below.

Table 4.15

Factors that influence capacity building activities at city councils

Serial	Factor
1	Lack of political will to train staff
2	The council is funded by the government and staff scholarships are not catered for in the budget
3	The council can only afford to organise basic orientation trainings
4	Staff make their own arrangements to upgrade themselves

On factors that influence capacity building activities at city councils, data collected from participants from one on one indicated several factors as illustrated in the table above. One participant coded 21 indicated as follows:

²¹Lack of political will to train staff is one of the factors influencing capacity building in cities. Management does not consider this as a priority to build capacity of staff. Another reason is that since councils are funded by the government as such, staff scholarships are not catered for in the budget. This has created a huge challenge on this issue. It is our wish the councils improve on this one in order for staff to improve performance.

Factors that influence adoption of procurement technologies at city councils

Finally, respondents were asked to state factors that influenced adoption of modern procurement technologies at the city councils. Respondents attributed lack of adoption of the modern technologies to lack of political will, lack of technical expertise and that these technologies are too costly to implement across the public sector. This data is presented in Table 4.16 below.

Table 4.16

Factors affecting adoption of procurement technologies at city councils

Serial	Factor
1.	The technologies are too costly to adopt for the entire public service
2.	Lack of technical expertise to operate the technologies
3.	Lack of political will to automate the system
4	Public procurement is controlled by a central system which has not adopted procurement technologies

After qualitative data was collected from participants, it indicated that majority expressed that some of the factors affecting the influence of adoption of procurement technologies at city councils include the high costs of the technologies hence difficult to cater for the entire public service. It was also indicated that some public departments have this modern technological equipment but fail to use them since they lack expertise. One participant coded 12 indicated as follows:

¹²*There are so many factors that affect the adoption of procurement technologies in city councils. The adoption of technologies is not effective as there are so many challenges that hinder the good progress. Since technologies are too costly to adopt for the entire public service, this makes the government not to afford to provide to all government departments including city councils. Another issue is that public procurement is controlled by a central system which has not adopted procurement technologies and could prefer if it were decentralized to speed the operations. In addition to this, there is lack of political will to facilitate the automation of the system in councils.*

Findings on Document Analysis

Results from document analysis were subjected to content analysis. The study assessed all documents that had been prepared for purposes of, or to facilitate the procurement process at the city councils in Malawi during the period spanning from the year 2017 to the year 2021. The documents that were revealed were those documents that were in the procurement files. According to the 2020 public procurement regulations, every procurement process is mandated to have a file which contains all necessary documents for the procurement process. These files are the ones that were revealed to assess if procurement processes at city councils follow recommended or mandated procurement process. According to the Public Procurement and Disposal of Public Assets Act of 2017, the documents that are included in a procurement process file are as follows: The procurement plans, bid documents, tender opening minutes, evaluation report, minutes of IPDC meetings, minutes of negotiation meetings and procurement contracts or local purchase orders.

In accordance with the five years captured in the present study, City Council produced a total of five procurement plans, 107 Local Purchase Order (LPO) documents, 107 procurement requisition documents, 128 procurement contracts, 139 bid documents, and 141 IPDC minutes documents. Content analysis was used to understand if the documents fall in line with the recommended or mandated public procurement practices.

The document analysis reviewed the contents of the documents that were presented in the procurement process files. The documents were analysed to check if their content were in alignment with the recommended content of the files by the public procurement act. It was found that the documents were in tandem with the regulations of the public procurement Act. It was found that, all documents were duly signed which indicated that the city councils practice recommended public procurement practices. On top of that, the procurement process files contained all the necessary documents that are required for a public procurement process as it is mandated by the 2017 Public Procurement and Disposal of Public Assets Act. This is also an indication that the city councils abide by the mandated public procurement practices.

Furthermore, bin cards, goods receive notes and goods issue note were all properly dated and recorded accordingly. All these three documents were balanced in such way that the bin cards reflected what was indicated in the goods receive notes as well as the goods issue note. These documents indicate that the city councils can keep their inventories up to date. It was also noted

that these documents were all in hardcopy formats. Thesis indicated that the city councils have not yet adopted electronic inventory management techniques. To add to that, Local Purchasing Orders (LPOs) and Purchase Requisitions were all in hardcopy formats. This is an indication that city councils in Malawi are still using ordinary means of keeping procurement records. There were no electronic documents or databases for the information that were requested. This implied that the city councils have not yet adopted electronic measures of keeping their data.

Regression analysis

To examine the extent to which each of the factors indicated by respondents influences them to adhere to public procurement practices at the city councils, the researcher carried out a regression analysis to determine the degree of relationship between each factor and adherence to procurement practices. Outcomes of the regression analyses are presented below.

Factors that influence officers to adhere to procurement policies at city councils

When respondents were asked to mention factors that prompt them to observe procurement policies, six main factors recurred across the board, and these were: to avoid corruption; to meet ethical requirements of the profession; to promote competition among SMEs and other enterprises; to avoid punishments; and to uphold the reputation and integrity of the organisation. Respondents were asked to rate these factors on a scale of 1 to 5 to state the degree of influence of each factor on adherence to procurement policies. The study set out to determine the extent to which each of these factors influences procurement officers to adhere to procurement policies. A regression analysis revealed outcomes presented in Tables 4.17 and 4.18 below.

Table 4.17*Factors affecting adherence to procurement policies at city councils (ANOVA^a)*

	Sum of Squares	df	Mean Square	F	Sig.
Regression	7.388	4	1.847	3.126	.024 ^b
Residual	25.999	44	.591		
Total	33.388	48			

a. Dependent Variable: factors affecting adherence to procurement policies

b. Predictors: (Constant), to avoid corruption, to avoid the stiff punitive measures for violating the policy, to meet ethical requirements of the profession, to increase competition among SMEs and other enterprises.

Table 4.18*Factors affecting adherence to procurement policies at city councils (regression coefficients^a)*

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.785	.598		4.656	.000
To meet ethical requirements of the profession	.085	.090	.128	.942	.351
To increase competition among SMEs and other enterprises	.147	.104	.196	1.414	.164
To avoid the stiff punitive measures for violating the policy	.239	.087	.379	2.746	.009
To avoid corruption	.033	.087	.052	.386	.701

The model is significant at 5% significant level with $p=0.024<0.05$. It can be concluded that there is a relationship between public procurement policies and adherence to public procurement practices. The adjusted R-squared is 0.15 which implies that the model has explained 15% of the variation in the data set. The variable stiff punitive measures, has a significant positive relationship ($p<0.009$) with adherence to public procurement practices which implies that the stiffer the punitive measure the more procurement personnel adhere to public procurement practices.

Factors that influence adoption of inventory management system at city councils

The respondents were also asked to list the reasons why city councils have not adopted many modern inventory management systems. These elements were mentioned as follows: too costly to install; lack of technical expertise to operate the system; public procurement system is centralised, and the central system has not adopted the modern inventory management system; lack of political will to automate the system; and, lack of political will to build staff capacity to operate the inventory management system. To determine the extent to which each element influenced the adoption of the inventory management system, respondents were asked to rank these factors on a scale of 1 to 5. There after a regression analysis was run. The results of the regression analysis, which was performed, are shown in Tables 4.19 and 4.20 below.

Table 4.19

Factors affecting adoption of inventory management systems at city councils (ANOVA^a)

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	14.884	5	2.977	2.003	.097 ^b
Residual	63.891	43	1.486		
Total	78.776	48			

a. Dependent Variable: adoption of modern inventory management

b. Predictors: (Constant), lack of political to build capacity, lack of technical expertise to operate the technologies, lack of political to automate the system, system too costly to adopt, and operations centralised.

Table 4.20

Factors affecting adoption of inventory management systems at city councils (regression coefficients)

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
(Constant)	1.448	1.061		1.366	.179
Too costly to adopt	-.289	.142	-.315	-2.037	.048
Lack of technical expertise to operate the technologies	.107	.178	.091	.598	.553
operations centralised	.173	.167	.163	1.037	.306
lack of political to automate the system	.071	.162	.066	.439	.663
Lack of political to build capacity	.196	.157	.189	1.252	.217

a. dependent Variable: adoption of modern inventory management

The model is significant at 10% significant level. The variable too costly to adopt has a significant negative relationship with adoption of modern inventory management practices. This implies that the costly it is to implement the modern inventory management practice. The model is significant at 10% confidence level with a p-value of $p < 0.097$. It can, therefore, be concluded that there is a significant positive association between adoption of modern inventory management practices and institutional factors. The adjusted R-squared for the model is 0.35 which implies that the model explains 35% of the variation in the dataset.

Factors that affect capacity building and staff development activities at city councils

The respondents were also asked to provide an explanation for why relatively few city council officers who are active in procurement operations have been given the chance to undertake formal training in procurement. These were the responses that were given: lack of political will to build the capacity of procurement officers; training of staff is not budgeted for in the annual subvention allocated to city councils; there are regular trainings arranged by the public service to help staff improve their capacity; and staff make their own arrangements to further their education. Respondents were asked to rate the extent to which each factor affects capacity building at the city councils on a continuum ranging from 1 to 5. The outcomes presented in Table 4.21 and 4.22 presented below were realised.

Table 4.21

Factors that hinder staff development activities at city councils (ANOVA^a)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	22.603	4	5.651	2.924	.031 ^b
Residual	85.029	44	1.932		
Total	107.633	48			

a. Dependent Variable: Factors affecting capacity building

b. Predictors: (Constant), staff make own arrangements to upgrade themselves, Political will to train staff, scholarships not budgeted for, basic orientation trainings

Table 4.22*Factors that hinder staff development activities at city councils (regression coefficients)*

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.264	1.070		3.985	.000
scholarships not budgeted for	-.117	.160	-.099	-.733	.467
basic orientation trainings	-.096	.161	-.084	-.597	.553
Political will to train staff	.302	.167	.255	1.811	.077*
staff make own arrangements to upgrade themselves	-.368	.155	-.322	-2.371	.022**

a. Dependent Variable: Factors affecting capacity building

The model is significant at 5% significant level with a $p < 0.031$ and an adjusted R-squared of 0.138 which implies that the model explains 13% of the variation in the dataset. The variable political will to train staff has a significant positive relationship ($p < 0.077$) at 10% significant level with capacity building which implies that the high the political will the high the capacity building at the institution. The variable staff make own arrangements to upgrade themselves has a significant negative relationship with capacity building. This implies that staff's own arrangements to upgrade themselves reduces the chances of capacity building in the city councils.

Factors that affect adoption of modern procurement technologies at city councils

Finally, the researcher asked respondents to list the factors that have made it difficult for city councils to implement modern procurement technologies. The following comments were given: the technologies are too costly to install and run; lack of technical expertise to operate the technologies; lack of political will to automate the procurement system; and, public procurement

system is centralised, and the central system does not use the procurement technologies. On a scale of 1 to 5, respondents were asked to rate these responses' effects on delaying the implementation of procurement technologies.

Evaluation of findings

This section presents a concise account of the evaluation of the data collected for the present study. This is essentially an interpretation of the data in terms of levels of adherence to procurement practices at the city councils. The study engaged four parameters which are recognised globally to determine level of adherence to procurement practices, and these are: procurement policies; inventory management practices; staff development initiatives; and adoption of procurement technologies. A sketchy interpretation of data on each of these parameters has been presented below.

Adherence to procurement policies

The study findings revealed that, the officers at city councils observe almost 90% of the procurement policies. Observance of procurement policies is triggered predominantly by the fear on the part of procurement officers for the punishments that are outlined for violation of each policy. These are the only factors that have a substantial impact on city councils' compliance with procurement policies. On the other hand, the other two factors which are, to meet ethical requirements of the profession and to avoid corruption are not significant in influencing city councils to adhere to procurement policies. This highlights that, procurement officers follow procurement regulations not because they want to be ethical and professional, or because they want to reduce corruption, but because they are bound by the penalties associated with procurement policy violations. Furthermore, of the two less significant variables, the desire to avoid corruption, which is the least influential of them all, has a greater influence on officers' adherence to the policy than the need to uphold the ethical standards of their profession. According to the study's findings, it can be implied that, procurement policies are largely observed at the city councils in Malawi. Moreover, most city council officers who are involved in procurement activities have shown that they observe procurement policies.

To evaluate the factors that affect stakeholder compliance with the Public Procurement Act of 2011 and its Regulations, Kinisa (2020) conducted a case study in Longido District Council in

Tanzania. The study found that, among other important factors, a lack of pertinent ICTs and inadequate training of procurement workers had a significant impact on stakeholders' compliance with the Act. These results support Gayed's (2013) assertion that the implementation of solid procurement regulations has an impact on the enhancement of the effectiveness of the procurement functions in both the public and private sectors. Some of these advantages go beyond simply improving how governmental procurement activities are carried out; they may also aid the country in reducing unemployment, strengthening industries, increasing regional involvement, enhancing diversity, and securing investment aid, among other things. Gayed's study was conducted in Libya in the context of global economic crises.

However, corruption still permeates the tendering process in Malawi despite the adoption and adherence of effective procurement policies. This contrasts with other scholars' findings that indicate that legislative frameworks and regulations for procurement are an efficient preventive tool to stop tendering fraud, especially in the case of public goods (Puddephatt & Kasper, 2012).

Adoption of inventory management practices

Data on levels of adoption of inventory management practices suggests that none of the modern strategies for managing the inventory in present day and age have been embraced at the municipal councils. This is primarily due to the installation expense of the aforementioned inventory management system. Therefore, a shortage of funding is the main problem preventing city councils from using current inventory practises. The absence of political will to implement the inventory management system in the public sector is the next important issue that has an impact on this tendency. Another recognisable, although less important, factor that prevents city councils from implementing the inventory management system is the fact that the public procurement system is centralised, and since the centralised system does not utilise the inventory management system, the city councils are prohibited from doing so by law. The lack of technical know-how to operate the systems at the city councils and the lack of political will to train procurement staff to acquire the necessary abilities for operating the system are two additional factors that have been reported to affect the adoption of inventory management practises at city councils. The results of this investigation, however, pointed to a very minor influence. Thus, it was shown that these factors had little effect on city councils. The absence of political will is the primary issue preventing the adoption of inventory management practises, according to a close examination of these five

elements. Once political will has been strengthened, adoption of the system, staff training, and similar objectives may be accomplished with ease. The study concludes that city councils have very little adoption and practice of inventory management practises.

The results presented are consistent with those of Okong'o and Muturi's (2017) study on the factors influencing the performance of procurement functions in public institutions in Kenya's county of Kisii. The study found that there is a lack of political will to promote efforts like adopting cutting-edge systems that will enhance the execution of public procurement tasks and allocating cash to assist initiatives for skill development. Further emphasis was placed on the fact that public procurement officers are among the key causes of many public institutions in the County performing their procurement duties below average. The study also urged politicians to refrain from interfering with the operations of public procurement systems, arguing that these systems should be permitted to carry out their duties without outside interference.

In keeping with this theme, a different study by James (2013) found that ineffective performance is hampered by a lack of systems and records for stores, political will, and a lack of a set time or date for posting store records. According to the study, the inventory management system should avoid having too many rules and regulations and excessive red tape.

Staff development initiatives

In this study, an assessment on the data on the formal training given to procurement officers to help them develop the necessary skills and competencies in their area of specialisation showed that, none of the officers involved in city councils' procurement activities had recently had the opportunity to receive formal training in the field of procurement. As a result, it is possible that municipal council procurement officials will lack technical knowledge in several areas of their job. This finding is supported by (Agaba & Shipman, 2007), who noted that adequate training in procurement is essential to improving employee abilities, which leads to adherence to national procurement regulations and efficient use of contemporary technology in the Supply Chain. Additionally, this is reinforced by the results of a study done by Okong'o and Muturi (2017) to look at factors influencing how public institutions in Kenya's Kisii County perform procurement functions. The study found that, among other things, lack of appropriate technical training in procurement among procurement officers contributed to the majority of the public institutions in the County's procurement systems performing fairly unsatisfactorily. Further evidence from the

study showed that insufficient in-service refresher trainings for those with some formal trainings were also a contributing factor in the poor performance. One of the primary recommendations of this study is that the government should distribute funds to all public institutions with a specific goal of assisting them in organizing regular skill-upgrading courses on various topics related to public procurement.

The survey also found that procurement officials personally arrange to enhance their credentials and that there is a lack of political will to implement programs to build capacity as the main causes of this development. The notion of political will is consistent with (Oluka & Basheka, 2014), who claimed that a lack of political will in capacity management constrains effective contract management, which has ramifications for service delivery in public procurement.

The other two factors that were reported by respondents are less significant, and these are that; scholarships for officers are not budgeted for in the annual budgets and that the city councils organise basic trainings for procurement officers. The study concludes that there are no significant staff development initiatives at the city councils.

Adoption of procurement technologies

Data analysis in this study has revealed that none of the technologies that are suggested for acquisition have been taken up by city councils. Data gathered for this goal shows that the lack of technical know-how in the procurement system to operate the technologies is the main deterrent for city councils to adopting procurement technology. The lack of political will to automate the system, the high cost of procurement technologies, and the centralization of the procurement system are the other three factors, which are similarly less important.

This analysis is in line with the observations made by (Naeem, 2021) that limited financial budget and technical support, high cybercrime rate and lower level of privacy, lack of e-commerce educational programs, and lower level of learning opportunities are some of the critical factors affecting the adoption and implementation of modern technology in the Supply Chain. These results were supported by (Amemba, 2013), who concluded that the performance of public procurement can only be enhanced by a review of current laws to promote extensive use of technology in the administration of the procurement process.

The level of compliance with procurement standards at the city council is very low, according to the analysis of the data considering the four factors for determining compliance with procurement policies outlined above.

Summary

This chapter presented the data gathered for this study. A clear account of the data's trustworthiness, reliability, and validity has been provided prior to its presentation. Triangulation is the primary approach that was used by the researcher in the current study to confirm the data's validity, reliability, and trustworthiness. In addition to that, the chapter includes a description of the demographic features of respondents that the researcher found important to the study. The data was presented in tables, descriptive analysis and regression analysis which were performed using SPSS version 26. The study also included qualitative data particularly content analysis to elicit participants' thoughts and opinions. A comprehensive account of the analysis of this data has been presented in the following chapter.

The study intended to identify factors that affect procurement officers to follow globally approved procurement methods. Four key parameters were used to serve as a yardstick for measuring the levels of adherence to procurement practices, and these are procurement policies, inventory management practices, staff development initiatives and adoption of procurement technologies. The study has concluded that the level of adherence to public procurement practices is very low at the city councils. It has been discovered that the two main factors influencing adherence to procurement practices at city councils are lack of political will to implement honourable procurement practices into the public service and fear of penalties for breaking laws.

CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS AND CONCLUSIONS

This study sought to investigate factors that affect Malawian city councils' adoption of best practices in procurement. The fact that, despite the adoption of procurement legislation, there is a significant amount of non-compliance with public procurement practices in the public sector in various African nations, including Malawi, served as the major impetus for this investigation. (Mahuwi & Panga, 2014; Mugambi, 2014; Osei-Tutu, Badu, & Owusu-Manu, 2010). As a result, the government of Malawi has mismanaged and lost a significant amount of public cash by using improper techniques, approaches, and standards in the procurement systems. (Ellis, Kutengule & Nyasulu, 2003). This development is attributable, among other factors, to lack of proper procurement equipment that can effectively monitor procurement processes such as procurement information and communication technologies (Mahuwi & Panga, 2014), lack of relevant skills and competences in procurement and supply chain management among officers who are involved in the procurement process (Ogubala, Mburu & Kiarie, 2014), and political interference which bypasses procurement channels to serve individual interests of those with political influence at the expense of the proper performance of the procurement systems (Asante, 2016). To address the negative effects of non-compliance with public procurement procedures in public procurement systems on the overall performance of organizations, procurement laws were passed in several nations. However, investigations have revealed that despite the procurement law's progressive nature, there is a severe lack of compliance with the law in more than 70% of organizations globally (Mugambi, 2014). As a result, the public sector is frequently confronted with an inefficient public financial management system that is characterized by subpar debt and spending management, corruption, opaque and discriminatory procurement processes, and poor debt management. These result in low productivity and subpar public service delivery, which slows down the development of the country.

Given the significance of adhering to the public procurement practices described in the preceding account, the current study aimed to identify the variables that affect their observance in the public sector. The understanding of these elements is thought to aid in addressing the difficulties resulting from non-compliance of the public procurement practices, particularly by removing the obstacles to observance. Both qualitative and quantitative research methods were used in the study as part of a two-pronged research paradigm. A structured questionnaire was used

to collect quantitative data, which was then analysed using regression analysis and descriptive statistics in SPSS version 26. For qualitative data, it was collected through interview sessions and document analysis. The qualitative data helped to get a lot of views from participants. This qualitative data was analysed through content analysis. The main limitation that the study was faced with was lack of technical know-how among most officers involved in the procurement systems at the city councils. This acute lack of knowledge hindered them from understanding some of the technical terms used by the researcher, such that they did not know what exactly the questions presented in the questionnaire demanded of them. Resultantly, in some other cases, participants were seemingly impelled to provide responses just to get over with the researcher even when they did not really understand what they were talking about. The researcher took note of this development during the pilot study carried out prior to the main study. He therefore put in place measures of ensuring that all respondents understood the questions prior to responding to any of the questions in the questionnaire. This was achieved by providing thorough explanation to the respondents about what each question in the questionnaire demanded of them before they were issued the questionnaires.

The researcher saw to it that all research ethical requirements were met during the entire research project, particularly during data collection. Informed consent was obtained from participants, their privacy and confidentiality were upheld and data that was collected for purposes of this study was not manipulated in any way.

This chapter discusses the implications of this study, makes recommendations to relevant authorities and subsequent studies, and presents conclusions drawn from this study.

Implications

This section presents the implications of the present study by particularly drawing logical conclusions from the findings presented in the preceding chapter, and aligning these conclusions to the core problem that the study was intended to address. Further, the section seeks to succinctly draw an account of how the findings and conclusions drawn in this study relate or respond to existing literature on the main issues that were explored in this study. This discussion has been done in accordance with the research questions of the study.

Effects of enactment of vibrant procurement policies on adherence to public procurement practices at the city councils

The first objective of the study was to establish if at all enactment of viable procurement policies has any effects on compliance to the procurement practices in the public service. The study identified fourteen procurement policies operational in the public service to examine how and how much procurement policies influence adherence to recommended public procurement practices. These policies have been rephrased below:

- i. Procurement practices must be transparent;
- ii. Each public institution must have a centralised contract and documentation hub;
- iii. There must be open competition during bidding process;
- iv. Every bid must be evaluated by an ad hoc evaluation team;
- v. Regulatory monetary thresholds for procurement functions must always be enforced;
- vi. There must be no discrimination when evaluating bids and awarding contracts;
- vii. Anonymity must always be observed when evaluating bids;
- viii. No procurement contract should be done between a procuring entity and its employee;
- ix. Procurement contracts should not be awarded to relations and friends of those in the procuring entity;
- x. Procurement should always be done by means of open tender proceedings;
- xi. ACB should always be involved in single source procurement;
- xii. Invitations to tender should always be advertised in at least two newspapers with wide readership;
- xiii. All interested bidders who are eligible for the contract must always be issued bid documents; and,
- xiv. Procurement processes must be regularly audited.

A descriptive analysis and document analysis of observance of these policies at the city councils revealed that procurement activities and processes are carried out in accordance with the procurement policies to a degree of about 90%. Only three policies were reported by about 5% of respondents to have been violated during the procurement processes at the city councils, and these policies were involvement of ACB in single source procurement, the requirement not to offer

contracts to employees at city councils, and the requirement not to award contracts to relations and friends of those working at the city councils. Most of the neutral responses were given by procurement interns who had little knowledge about procurement processes at the city councils as this was part of their process.

The study further sought to establish factors that have led to the high observance of procurement policies at the city councils to the extent of 90%. Six factors were indicated by respondents, and these were:

- i. To meet ethical requirements of the procurement profession;
- ii. To check corruption;
- iii. To improve the overall performance of the City Council;
- iv. To avoid the stiff penalties associated with violation of the policy;
- v. To uphold the integrity and reputation of the City Council; and,
- vi. To promote competition among SMEs and other enterprises as they compete for tenders.

The researcher carried out a descriptive analysis and a regression analysis of these factors to determine the extent to which each of these factors influences procurement officers to comply with procurement policies. The analyses revealed that the most significant factor that influences procurement officers to observe the procurement policies at the city councils is the fear for punitive measures associated with violation of the policy. This is the only significant factor that promotes observance of procurement policies at the city council. The other factor that is rated next to the fear of punishments is the quest to promote competition among enterprises that tender for bids. The assumption is that if all policies are observed, only those enterprises that strive to claim a competitive advantage on the market will manage to win tenders, and this will eventually lead to competition for growth and excellence among enterprises. The other two factors; to meet ethical requirements of the profession and to avoid corruption had a very insignificant influence on observance of procurement policies at the city councils. The conclusion drawn from this analysis is that procurement policies are observed at the city councils predominantly because public officers are afraid of disciplinary measures that come with violation of the policies, and not necessarily

because workers are inclined towards upholding the ethical requirements of the procurement profession.

These findings confirm observations made by Odumai and Getuno (2017) and Kinisa (2020) in their studies conducted in Kenya and Tanzania respectively that procurement laws and regulations play a vital role in ameliorating the performance of procurement systems. In the same vein, separate studies by Kenyanya, Onyango and Mamati (2011) and Davis (2014) in Kenya revealed that public institutions that operated without proper procurement regulations performed rather poorly in the procurement sector than those that had sound procurement policies in place. However, apart from the observations common to the studies cited in this account, the present study has further discovered how procurement policies contribute towards improving the performance of public procurement processes. Thus, the study has revealed that it is the fear of the punishments allocated to violation of each policy that prompt officers to adhere to policies. Without these policies, observance of the policies will decline drastically. The study, therefore, predicts that if stiffer punishments will be recommended for non-observance of procurement policies, there will be more discipline in public procurement systems which will lead to a more improved performance of both the procurement system and the entire organisational system. While officers will predominantly be afraid of the penalties at the back of their minds when observing procurement policies, in a process, other factors will be fulfilled along the way. Thus, as they will be trying to avoid penalties, they will be avoiding corruption, meeting ethical requirements of the profession, and upholding the integrity of the city councils in a process.

Factors that influence procurement officers to adhere to inventory management practices at city councils

Secondly, the study was intended to determine factors that influence procurement officers to comply with inventory management techniques and strategies that are recommended globally. Four items that typify inventory management practice world over were singled out to determine the extent to which city councils had adopted the practice, and these were: inventory management tools and strategies; inventory management principles; inventory management policies; and, inventory management technologies.

The researcher carried out a descriptive analysis and a document analysis to determine the level of adherence to this procurement practice. About 96% of the respondents indicated that the city councils do not observe any of the sophisticated inventory management practices. The other 4% were neutral answers given by procurement interns who might be taken to not have mastered the procurement system trends and strategies at the councils. It was indicated that procurement is carried out using just-in-time strategy (instant buy and use) once a requisition by user is issued. Thus, the city councils rarely stock their inventories.

The researcher therefore sought to establish factors that have led to low adoption levels of recommended inventory management practices at the city councils. The following factors were presented.

- i. Inventory management practices are too costly to adopt;
- ii. Lack of technical expertise to operate the technologies;
- iii. The procurement system is dictated by a central public procurement system which is not automated;
- iv. Lack of political will to automate the system; and,
- v. Lack of the political will to build the capacity of the procurement personnel.

The researcher ran a regression analysis to determine the extent of relationship between each of these variables and the dependent variable, which is adoption of inventory management practices. The analysis revealed a significant relationship between the cost of inventory management practices and adoption of these practices at the city council. Thus, the study revealed that the high cost of installing inventory management practices is hindering city councils to adopt these practices. Though not very significant, other factor which comes next to this one in terms of significance is lack of political influence to build capacity to operate the recommended inventory management practices.

Theorists have used the imagery of what an engine and wheels are to a vehicle to illustrate the relevance of inventory management to an organisation. It is argued that an inventory serves as a key driver for production and distribution systems of organizations (Masudin, Kamara, Zulfikarijah & Dewi, 2018; Miller, 2010). While research has shown that failure to adopt inventory management practices will have noticeable implications on the performance of the procurement

system and the overall performance of the organisation, the present study revealed no significant challenges faced by the city councils in the light of non-usage of modern inventory management practices. Thus, with the ordinary just-in-time strategy in use in the procurement system, the city councils managed to run all their procurement activities very smoothly while perfectly keeping all the records and details of all transactions.

This leads to the speculation that modern inventory management practices are more ideal in corporate organisations, particularly those in manufacturing industry whose invested capital goes up to 30% (Burt, Dobler & Starling, 2003). Poor inventory management at such organisations will affect sales, customer services and revenue, which negatively impact an organization's performance, while maintaining accurate records of inventory improves customer service and improves productivity of the organization (Burt et al., 2003; Godana & Ngugi, 2014; Masudin et al., 2018). It is this view which is shared among scholars that prompted the conclusion that proper functioning of the procurement system at the city councils in the absence of modern inventory management system should be attributable to the fact that the city councils are public institutions whose operations are not intended for profits, and that their operations do not usually require bulky purchases of materials since the just-in-time strategy suffices. Since this is only a speculation, the researcher has suggested to subsequent studies to consider exploring this aspect to discover a more concrete explanation to account for proper running of inventory management activities at the city council even when they do not have modern inventory management technologies and techniques in place.

Level of attainment of formal education in procurement at the city councils

Procurement practices recommend that organisations should consider providing scholarship opportunities to procurement officers to enable them to pursue formal training as this will build their capacity to effectively run procurement activities and adapt to the ever-changing procurement landscape in the light of incessant breakthroughs. The study therefore set out to establish how much procurement officers underwent formal training in the field on government scholarships. A descriptive analysis of the data that was collected on this objective revealed that over 69% of those people who were involved in procurement activities at the city council did not have any formal training in procurement, and that only 6.1% of the respondents had had an opportunity to earn government scholarships to further their education in procurement. All the city

councils offered were simple orientations to basic procurement issues meant to equip officers with skills they needed to run procurement activities. Respondents indicated the following reasons to account for the low tendencies to provide scholarship opportunities to procurement officers at the city councils.

- i. Lack of political will to initiate capacity building and staff development campaigns;
- ii. Staff development is not budgeted for in the subvention allocated to city councils;
- iii. The councils can only afford to arrange basic orientation trainings; and,
- iv. Officers make their own career development initiatives.

The study ran a regression analysis to determine the relationship between these factors and provision of scholarship opportunities to procurement officers. The analysis revealed two significant factors that retard staff development initiatives at city councils, and these are lack of political will to initiate staff development projects and the tendency among staff to make personal arrangements to develop their careers by themselves. These factors are inherently related in that lack of political will to train staff in the public service has prompted officers to consider fending for their career development aspirations on their own. Furthermore, the other two factors are closely related to the core factor established on this objective, which is lack of political will to develop staff. Put succinctly, it can be argued that since there are no initiatives to train procurement officers, the government does not include staff development in its annual budgets and this is why a less costly alternative is settled for, which is to arrange simple orientation sessions. It can be concluded from this account, therefore, that the main factor affecting staff development activities at city councils is lack of political will to consider embarking on such activities. This factor relates to the inventory management practices discussed in the previous discussion in which lack of technical expertise to operate certain technologies that are related to inventory management will require certain competences on the part of officers, and these can only be acquired through training. It has been argued in literature that regular training of procurement officers affords for-profit organisations an opportunity to outwit its competitors on the market through acquisition of technical competences that such as use of relevant technologies that will expedite the entire procurement process from purchase of raw materials and distribution of final products (Mital, 2014; Shale, 2015). In the cases of both non-profit and for-profit organisations, research has

indicated that provision of training to procurement officers improves the performance of the procurement system as officers acquire advanced modern skills and competences for checking malpractices such as corruption which will in the long run improve the efficacy of the procurement system and the overall performance of an organisation (Neupane et al., 2012; Nurmandi & Kim, 2015). Regarding the nature of training, Apiyo and Mburu (2014) and Ramkumar (2015) recognise in-service refresher courses as equally important initiatives for enabling procurement officers to acquire skills and competences that will render them relevant still in the procurement game. From this account, it should be recommended that, in the event that city councils do not sponsor formal training for its procurement officers, the councils should ensure that the training sessions they organise for procurement officers should cover broad aspects of modern procurement and in great depths, and that these sessions should be arranged more regularly to build the capacity of their officers to a level that will render them comparable to their counterparts that attain formal training.

Factors influencing the low adoption of procurement technologies at city councils

Finally, the study has discovered extremely low levels of adoption of procurement technologies at the city councils. Level of automation of the procurement system was measured along the following parameters: online bidding; internet marketplace; electronic data interchange; electronic procurement; electronic mail; cloud-based procurement software; microservices and low-code platforms; process automation; and self-service portals. All the respondents indicated that none of these procurement technologies was in use at the city councils as the procurement system was operated manually. This tendency was attributed to four factors, namely:

- i. Procurement technologies are too costly to adopt for the entire public service;
- ii. Lack of technical expertise to operate the procurement technologies;
- iii. Lack of political will to automate the procurement system; and,
- iv. Public procurement is controlled by a central system which has not yet adopted procurement technologies.

A regression analysis was run to determine the extent to which each of these factors influences adoption of procurement technologies at the city councils. The outcomes indicated that among the factors mentioned by respondents, there is only one factor which is exceedingly

significant and this is lack of technical expertise at the city councils to operate procurement technologies. Again, this factor is closely related to the other three factors. For instance, since procurement technologies are deemed to be costly to adopt, they have not been introduced in the procurement system in the public service, and this has led to lack of technical expertise to operate these technologies. Both these factors emanate from the lack of political will to automate the system, which is why the central public system has not adopted the technologies, making it impossible for lower levels of the public service to adopt them. Research has revealed that adoption of procurement technologies such as e-procurement improves the performance of procurement process (Keana, 2015; Madhdillou & Akbary, 2014; Medard, 2016; Ngugi & Mugo, 2017). This was confirmed at the city councils where a document analysis employed in this study revealed that the procurement system at the city councils is run manually through and through. The process was too slow, it was not easy to check procurement anomalies in the procurement systems such as awarding contracts to employees, relations and friend since transparency and accountability could not be achieved with only the manual system in place. It is imperative, therefore, that the city councils consider adopting procurement technologies that will enhance the performance of the procurement system in which case such technologies as e-procurement, e-mails and the like will improve the speed of the process. Automation of the system will also help ensure transparency and reduce irregularities in the procurement system, say during bid evaluation and selection of eligible bidders. However, as was highlighted in the foregoing account, adoption of this idea is contingent of the political will factor discussed earlier which will, among other factors, require a robust staff development campaign to equip officers with the skills they will need to operate the automated system.

Recommendations for application

In light of the data collected in this study, and observations made, and conclusions drawn from the analysis of the data, the researcher has made some recommendations to various stakeholders and authorities to improve the performance of the procurement systems at the city councils and the overall performance of the city councils themselves. This section presents these recommendations in line with outcomes of the analysis of the data for each of the four objectives of the study.

Observance of procurement policies

The study observed that the most stupendous factor that influences procurement officers to adhere to procurement policies is the fact that there are stiff punitive measures associated with violation of each policy. These punishments serve as deterrents to procurement officers. Thus, while other factors such as the need to uphold ethical requirements of the profession and the need to address corruption may be placed in the foreground, it is the fear for punishments that predominantly restrains procurement officers at the city councils from committing offences relating to procurement policies. In light of this observation, the study recommends to policy makers that stiffer penalties should be put in place for breaking policies and that these penalties should be applied evenly and impartially to officers who break the policy. This will improve the rate of adherence to procurement policies.

Secondly, the study has observed that there are certain instances of violation of procurement policies at the city councils relating to awarding of contracts. For instance, it was observed that a certain percentage of respondents, though insignificant for purposes of research conclusions, indicated that the policies which restrain the councils from awarding contracts to family, friends and employees of the councils, and one which requires the city council to engage ACB in single sourcing procurement were not observed all the time. To this effect, the study recommends to the city councils to make deliberate efforts to empower the IPDC to carry out thorough examination of bidders so that none of the bidders in any contract are related in any way that is unacceptable to officers at the city council. Should there be any suspicious acts during procurement transactions, the penalties recommended in the foregoing account should be applied to any officer regardless of his or her position of influence in the organisation.

Finally, the study recommends to city council management to arrange special sensitisation programmes that will serve to enlighten its officers who are involved in procurement activities at the four councils to understand the core purpose of enactment of procurement policies so that officers should not have penalties for violating policies at the back of their minds driving them to observe policies, rather they should adhere to policies because of the positive implications this will have on the performance of the organisation and the economic implications this will have to the nation as a whole in the long run. There is need for a paradigm shift so that procurement officers

should be committed to upholding ethical requirements and professionalism, which should justify adherence to procurement policies more than the fear of punishments.

These recommendations are consonant with the observations made by several researchers who indicated that failure to enact procurement policies that are binding and that cannot be enforced will lead to development of chaos, disarray and unproductivity in both the public service and the private sector (Agaba & Shipman, 2007; Chimwani, Iravo, & Tirimba, 2014; Odumai & Getuno, 2017).

Adoption of inventory management practices

The study examined levels of adoption of inventory management practices at the city councils to establish factors that led to the observed levels. It was observed that adoption of inventory management practices at the city councils was very low, and this was ascribed to lack of political will to automate the system and train procurement personnel, lack of expertise to operate the improved system and lack of funds to install the system.

Since the study did not notice any significant challenges facing the procurement system at the city councils emanating from lack of adoption of modern inventory management, the researcher recommends that more studies should establish why non-usage of inventory management practices at the city councils did not have any impact on the performance of the procurement system at the city councils. This recommendation has been presented in detail in the following section which states suggestions made by the researcher for subsequent studies on issues related to the procurement practices.

Provision of formal training to procurement officer to upgrade their qualifications

Further, the study sought to determine factors that influence provision of public scholarship to procurement officers at the city councils. It was observed that the city councils had not provided any scholarships to its procurement officers recently, at least not during the past fifteen years which was ten years beyond the temporal scope of the study. Procurement officers were only offered basic orientation training sessions to equip them with basic skills in the field and acquaint them with new developments in the profession.

It was observed that lack of political will to provide scholarships was the main factors that led to this tendency, which eventually resulted in officers resorting to defraying their own

education. However, only five officers had attended further education on self-sponsorship basis, which implies that more officers did not have an opportunity to upgrade their qualifications.

In light of this development, the researcher recommends to management of the city councils to intensify the depth of content coverage in the basic orientations sessions which are conducted by the public service under the PPDA, and that these sessions should be conducted more regularly to ensure that all officers who serve in the IPDC should have at least the minimum competences and skills required in the present day and age to function effectively in the field of procurement anywhere in the world. These trainings should be responsive to needs relating to technological requirements of the procurement field.

This recommended resonates around the observation made by researchers that institutions should arrange in-service trainings on regular basis to ensure that their officer in the procurement department should possess competences and skills akin to those of their counterparts elsewhere in the world which are responsive to the demands of the profession in the face of technological advancements experienced in the discipline. These studies have reiterated that organisations which provide meaningful trainings to their officers on a regular basis register an improvement in the performance of the procurement system and the overall performance of the organisation (Apiyo & Mburu, 2014; Kipkemoi, 2017; Lysons & Gillingham, 2003; Mital, Pani & Ramesh, 2014; Nurmandi & Kim, 2015; Ramkumar, 2015; Shale, 2015).

Adoption of procurement technologies at the city councils

Despite the tangible evidence that procurement technologies are indispensable in present day procurement, the present study discovered that city councils have not installed any technologies in place in their procurement systems. This development is attributable to predominantly to lack of political will to automate the procurement system and develop staff capacity to run the automated systems. Studies have shown that procurement technologies have improved the capacity of organisations to check such malpractices such as corruption and discrimination and have improved transparency and accountability in the procurement systems considering the ease of accessing information and accuracy that come with them. Furthermore, procurement technologies have contributed in creating value and reducing overheads associated with the procurement process and in realising improvements in cycle time reductions and process quality. These factors have ultimately ameliorated the procurement functions of organisations and

efficiency of the public sector (Abdalla & Wanjiru, 2016; Madhdillou & Akbary, 2014; Mongare & Nasidai, 2014; Okore & Muturi 2016; Patel, 2017).

It is clear from this account that the city councils are missing out a great deal on the benefits of procurement technologies discussed above. In the light of this, therefore, the present study recommends the city councils to install procurement technologies in its system, among other benefits, to improve transparency in the procurement functions which will eventually arrest suspicions raised by other procurement officers at the councils who believe that some procurement policies are being violated at the councils as discussed earlier. In addressing factors that have retarded adoption of these technologies such as lack of political will and lack of technical expertise, the city councils may consider generating funds from such sources as city rates to install the technological procurement facilities and use in-service training sessions recommended earlier as a platform to help procurement officers acquire the technical-knowhow of operating these technologies effectively.

Recommendations for future research

This section suggests areas that subsequent studies on procurement relating to issues captured in the present study may consider focusing on. These suggestions for further research have been drawn from some of the objectives of the present study.

The first suggestion is on inventory management. The present study has observed that irrespective of the fact that the city councils do not have modern inventory management practices in place, the functions of the procurement systems at the councils were not distinguishably affected in a significant manner as they would if they had adopted the inventory management practices. This observation led the assumption or loose speculation that inventory management practices are more relevant in the context of for-profit corporate organisation than they are in the public service. This is hitherto inconclusive. It is to this effect that the researcher suggests that subsequent studies should consider exploring the impact of adoption of inventory management practices in the public service or non-profit oriented organisation. The study may be designed to operate on the hypothesis implied in the observation of the present study that inventory management practices are ideal in corporate institutions.

Secondly, the present study has attributed failure to adopt modern procurement strategies and techniques at the city councils predominantly to lack of political will to automate the procurement systems and to train procurement officers to enable them acquire skills and competences to operate procurement technologies. Harping on the same note, the study indicates since the public procurement system is controlled by a central hub known as the PPDA, it is almost impossible for the city councils to automate their procurement systems on their own. The assumption here is that most organisations and institutions in the private sector have adopted procurement technologies considering their indispensability and considering that these organisations are smaller in size than the magnitude and complexity of the public sector. The study, therefore, suggests that prospective researchers should consider carrying out a comparative analysis of the performance of procurement systems of two firms that deal in the same business, but one from the public sector and another from the private sector. An instance of such a pair could be the two cereal and grain marketing agencies Agriculture Development and Marketing Corporation (ADMARC) and Bakhressa. The former is a state-owned institution, and the latter is a private entity. Researchers may consider comparing how procurement processes are carried out and determine whatsoever implications there are emanating from any noticeable disparities in the way procurement activities are discharged at the two institutions. This will help to validate or invalidate the claims made by respondents in the present study which put the blame to the state of affairs in public procurement to lack of political will. This purported political does not apply to the private sector.

Lastly, future studies may consider exploring why procurement officers are so much influenced to adhere to procurement policies out of fear of the penalties associated with violation of the penalties rather than the quest to achieve ethical requirement and professionalism in the field. This is an important area of research interest considering that the motivation of adherence to procurement policies lacks vigour to sustain the quest. Simply put, procurement officers at the city councils can easily be lured to violate the policies while executing their duties once they realise that they will not be discovered if they break the policies. Thus, every time they are sure to evade the long arm of the law, they will be willing to violate the policies. It is this understanding that impels the researcher to encourage future studies to consider exploring this pursuit as it will contribute towards building sanity in the public service considering that officers will always shun

malpractices in their procurement activities constrained by ethical demands of the profession rather than fear of the punishments spelled out against committal of each policy violation offense.

Conclusion

This section provides a summary of the implications and recommendations of these findings in the field of procurement, literature on procurement and on the nature and well-being of the city councils and other public institutions with akin experiences to those of the city councils in terms of the challenges and opportunities they are likely to encounter in the field of procurement.

Given that organisational performance is defined as an organization's capacity to fulfil its primary goal through effective administration, strong organisation, and a fervent commitment to achieving results, and that operational management is the process of transforming resources like labour and materials into services as efficiently as possible, (Zhu, Sarkis & Geng, 2007) it remains indisputable that enhancement of the procurement function of an organisation is essential as it contributes towards the performance of the said organisational system. According to some definitions, organisational performance is a collection of monetary and non-monetary indicators designed to assess the degree to which authoritative objectives and goals have been honed. It involves evaluating an organization's performance in relation to its goals and aims. All things considered, actual results or outputs are compared to anticipated results in order to assess organisational performance. This is contingent, to some extent, on the effectiveness of the procurement function of the organisation. Organisations throughout the world are constantly under pressure to provide outcomes in an unpredictable environment. The modern business climate demands that companies continuously improve their processes and methods of operation in order to fulfil goals and maintain the organization's competitive advantage and market relevance while meeting organisational targets in the best possible way. In this distinct global marketplace, procurement policy ought to play a pivotal role in capturing the value at risk (World Bank Public Procurement Reforms, 1995).

In the light of this, it is imperative that every organisation, including the city councils in Malawi, should consider ameliorating their procurement systems by enacting viable procurement policies, adopting modern inventory management techniques, adopting modern procurement technologies, and providing formal training regularly to their procurement staff to equip them with

the skills and competences that are relevant for the proper execution of their duties in the modern day procurement profession.

There are several studies that confirm the relevance of these four procurement practices, namely, enactment of procurement policies, enhancement of inventory management system, adoption of modern procurement technologies, and provision of formal training regularly to procurement staff. Regarding procurement policies, studies have shown that organisations with vibrant procurement policies will have effective procurement functions which will eventually translate into an improved performance of the whole organisation (Ahmed, 2019; Eldin, Ragab, Ragheb & Mokadem, 2019; Emmanuel, Abiola & Atoke, 2021; Kamchape, 2020).

A study by Mbugi and Lutege (2022) has shown that inventory control management system using principles of economic order quantity affects organizational performance in terms of cost reduction, production efficiency, flexibility and profitability. The study recommends an implementation of new practices and models such as Vendor Managed Inventory (VMI) in the company's inventory control management will have a significant effect on the procurement function's performance of an organisation. Harping on the same note, a study conducted a little earlier by Agu, Ozioma and Nnate (2016) revealed that every business must manage its inventory in order to function. Since many businesses are using the strategy of lowering their investment in fixed assets, inventory as an asset on their balance sheets has become more significant. To this effect, the research suggested that organisations provide their staff with training in inventory control management so they can oversee the seamless operation of inventory management initiatives or programmes as this has proved to have a very positive impact on the performance of an organisation. Similarly, a study carried out by Mathias and Owuor (2015) indicated that inventory management system is positively related and is significant for organizational performance in the manufacturing industry. Three of the four attributes of inventory management system were found to be positively related to organizational performance. The researcher thus recommended that inventory management should be held strategically to boost organizational performance in manufacturing organisations.

Adoption of modern procurement technologies has proved to improve the performance of the procurement system, such that organisations whose procurement systems are automated

perform better than those whose systems do not make use of modern procurement technologies (Barasa, Namusonge & Okwaro, 2017; Kawuki, 2019; Keana, 2015; Ogachi, 2017).

Finally, studies have confirmed that procurement systems that are managed by a human resource who possess demonstrably high formal skills and competences in the field of procurement will perform much better than that whose staff are only moderately trained and lack prerequisite skills and competences (Eliah & Athumani, 2020; Oduma & Getuno, 2017; Odhiambo & Theuri, 2015; Wanjiru & Chege, 2020).

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APPENDICES

Appendix A: UNICAF Authority Letter to Seek Consent from City Council

(Gatekeeper Letter)



UU_GL - Version 2.0

Gatekeeper letter

Address: THE CITY COUNCIL OF MALAWI

Date: 19TH JANUAF

Subject: DATA COLLECTION ON PhD STUDY

Dear Participant

I am a doctoral student at Unicaf University (Malawi).

As part of my degree I am carrying out a study on Factors influencing adherence of procurement best practice implementation along district councils in Malawi

I am writing to enquire whether you would be interested in/willing to participation in this research.

Subject to approval by Unicaf Research Ethics Committee (UREC) this study will be using the questionnaire to collect data.

The title of the project is factors affecting the adherence of procurement best practice and am being supervised by Dr Mary Mutete Mwanzia

You will be required to assist in the following areas: To provide contact details; To enable the Researcher to perform and collect data and to provide any necessary key information key for the research. The estimated time is 1 hour for a day

Thank you in advance for your time and for your consideration of this project. Kindly please let me know if you require any further information or need any further clarifications.

Yours Sincerely,

NELSON DUNCAN KHORIYO

Student's Name: NELSON DUNCAN KHORIYO

Student's E-mail: nelsonkhoriyo@gmail.com

Student's Address and Telephone: C/O ESCOM, P.O BOX 2047 MALAWI +265991017134

Supervisor's Title and Name: Dr Mary Mutete Mwanzia

Supervisor's Position: SUPERVISOR

Supervisor's E-mail: m.mwanzia@unicaf.org

Appendix B: Research Ethics Application Form



REAF_DS - Version 3.1 AP

UNICAF UNIVERSITY RESEARCH ETHICS APPLICATION FORM DOCTORAL STUDIES	UREC USE ONLY: Application No: Date Received:
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Student's Name: NELSON DUNCAN KHORIYO

Student's E-mail Address: nelsonkhoriyo@gmail.com

Student's ID #: R1702D2343911

Supervisor's Name: Dr Mary Mutete Mwanzia

University Campus: Unicaf University Malawi (UUM)

Program of Study: UUM: PhD Doctorate of Philosophy - Business Administration

Research Project Title: Factors influencing adherence of procurement best practise implementation along district councils in Malawi

1. Please state the timelines involved in the proposed research project:

Estimated Start Date: December 2021 Estimated End Date: May 2022

2. External Research Funding (if applicable):

2.a. Do you have any external funding for your research?

☐ YES ☒ NO

If YES, please answer questions 2b and 2c.

2.b. List any external (third party) sources of funding you plan to utilise for your project. You need to include full details on the source of funds (e.g. state, private or individual sponsor), any prior / existing or future relationships between the funding body / sponsor and any of the principal investigator(s) or co-investigator(s) or student researcher(s), status and timeline of the application and any conditions attached.

N/A

2.c. If there are any perceived ethical issues or potential conflicts of interest arising from applying or and receiving external funding for the proposed research then these need to be fully disclosed below and also further elaborated on, in the relevant sections on ethical considerations later on in this form.

N/A



3. The research project

3.a. Project Summary:

In this section fully describe the purpose and underlying rationale for the proposed research project. Ensure that you pose the research questions to be examined, state the hypotheses, and discuss the expected results of your research and their potential.

It is important in your description to use plain language so it can be understood by all members of the UREC, especially those who are not necessarily experts in the particular discipline. To that effect ensure that you fully explain / define any technical terms or discipline-specific terminology (use the space provided in the box).

<p>The Specific Objectives:</p> <p>(a) To examine the effect of procurement policies on effective implementation of public procurement practices in district assemblies in Malawi.</p> <p>(b) To determine how management of inventory in district assemblies impact on effective public procurement practice implementation in Malawi.</p> <p>(c) To investigate the levels of training acquired by the stakeholders within the local councils and their impact on implementation of public procurement practices in Malawi.</p> <p>(d) To assess the level of system automation infrastructure within the district assemblies and their impact on enhancing public procurement practice in Malawi.</p> <p>The Study Hypothesis:</p> <p>(a) There is no positive effect of the procurement policies on effective implementation of public procurement practices in district assemblies in Malawi.</p> <p>(b) There is a no positive association between management of inventory in district assemblies' impact on effective public procurement practice implementation in Malawi.</p> <p>(c) There is a no positive effect on the levels of training acquired by the stakeholders within the local councils and their impact on implementation of public procurement practices in Malawi.</p> <p>(d) There is a no positive association between the level of system automation infrastructure within the district assemblies and their impact on enhancing public procurement practice in Malawi.</p>
--

3.b. Significance of the Proposed Research Study and Potential Benefits:

Outline the potential significance and/or benefits of the research (use the space provided in the box).

The findings of this study will assist in providing more information regards to the public procurement implementation practices adherence among the stakeholders in District assemblies and the Country at large which will in turn reduce loss of revenues through maverick procurement practices thereby improving service deliveries along the District Councils in Malawi. This is very significant as issues affecting adherence will be identified and solutions suggested that will assist Malawi government in its quest for public financial management reform policy, more importantly from the district assembly level as currently there are no studies that have been conducted as regards to the adherence of public procurement practice implementation at District Assemblies in Malawi. Secondly, findings of the study will assist in redirecting policies related to public procurement practices at district assemblies in addition of informing the central government on how the public procurement is being practiced at the district assembly and there by supporting the national structural adjustment public funds programmes. Lastly, the study will contribute to the body of knowledge in that findings and approach of this study will provide insights to other significant dimensions for further research in either district assemblies or the central government.

4. Project execution:

4.a. The following study is an:

- ☒ experimental study (primary research)
- ☒ desktop study (secondary research)
- ☐ desktop study using existing databases involving information of human/animal subjects
- ☐ Other

If you have chosen 'Other' please Explain:



4.b. Methods. The following study will involve the use of:

Method	Materials / Tools
Qualitative:	<input checked="" type="checkbox"/> Face to Face Interviews
	<input checked="" type="checkbox"/> Phone Interviews
	<input type="checkbox"/> Face to Face Focus Groups
	<input type="checkbox"/> Online Focus Groups
	<input type="checkbox"/> Other *
Quantitative:	<input checked="" type="checkbox"/> Face to Face Questionnaires
	<input checked="" type="checkbox"/> Online Questionnaires
	<input type="checkbox"/> Experiments
	<input type="checkbox"/> Tests
	<input checked="" type="checkbox"/> Other *

*If you have chosen 'Other' please Explain:

Census survey will also be used based on the fact that the area is of study is limited hence need to collect data for each and every element or unit of the population

5. Participants:

5 a. Does the Project involve the recruitment and participation of additional persons other than the researcher(s) themselves?

- ☒ YES If YES, please complete all following sections.
- ☐ NO If NO, please directly proceed to Question [7](#).



5 b. Relevant Details of the Participants of the Proposed Research

State the number of participants you plan to recruit, and explain in the box below how the total number was calculated.

Number of participants

The total number of 49 was calculated based on the fact that these are people who are directly involved in the procurement activities at the City Councils of Malawi. They consist of 21 people in the procurement department and 28 members of the Internal Procurement and Disposal of Assets (IPDC). This is the committee comprising of members from the senior management, finance, technical and procurement which is created to oversee the procurement of products for the Blantyre District Council

From the total number of participants, 8 participants will take part in the interviews and these are 4 senior procurement officers, and 4 Chairpersons for the tender committees for all district councils. Then all 49 participants will take part in online and face to face questionnaire and these are members of the procurement departments and members of the

Describe important characteristics such as: demographics (e.g. age, gender, location, affiliation, level of fitness, intellectual ability etc). It is also important that you specify any inclusion and exclusion criteria that will be applied (e.g. eligibility criteria for participants).

Age range From To

Gender ☒ Female
☒ Male

Eligibility Criteria:

- Inclusion criteria

The Participants have knowledge in Public Procurement Laws and Regulations and Public Finance and Management Act of Malawi. Further to that the participants are the only people who are directly involved in the procurement activities and have vast experience and education qualifications
- Exclusion criteria

Participants with no knowledge in Public Procurement Laws and Regulations and Public Finance and Management Act of Malawi

Disabilities

Proper procedures will be followed to engage people with disabilities. Only participants who can provide informed consent for themselves will be considered and participants with mental disabilities will not take part in the research

Other relevant information (use the space provided in the box):



5 c. Participation & Research setting:

Clearly describe which group of participants is completing/participating in the material(s)/ tool(s) described in 5b above (use the space provided in the box).

The group of participants in this research have been purposely selected based on the fact that they are directly involved in the procurement activities for the District Councils. The following is the group of participants to provide data in relation to the research: (1) Twenty one (21) Members of the Procurement Department who are direct expertise with prerequisite procurement qualifications to manage procurements and Twenty eight (28) Members of the Internal Procurement and Disposal Committee (IPDC) which is a committee appointed by the Controlling Officer/CEO in line with the Public Procurement and Disposal of Assets Act of 2017 and the committee consists of members from the Procurement, Finance Department, Senior Management and Technical expertise.

With reference to 4b and 5b:

4 senior procurement officers, and 4 Chairpersons for the Internal Procurement and Disposal of Assets Committees (IPDC) for all district councils totaling to 8 participants will take part in face to face and online interviews while 21 people in the procurement department and 28 members of the Internal Procurement and Disposal of Assets Committees (IPDC) will take part in the face to face and online questionnaires

5 d. Recruitment Process for Human Research Participants:

Clearly describe how the potential participants will be identified, approached and recruited (use the space provided in the box).

All the participants will be approached via the gatekeeper. They will be purposely selected based on the fact that they have vast knowledge in the procurement management as they are directly involved in the procurement management at the Malawian District Councils. Therefore all members have been selected and will be approached with the questionnaires alongside interviews and recorders to provide data relating to the study

5 e. Research Participants Informed Consent.

Select below which categories of participants will participate in the study. Complete the relevant Informed Consent form and submit it along with the REAF form.

Yes	No	Categories of participants	Form to be completed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Typically Developing population(s) above the maturity age *	Informed Consent Form
<input type="checkbox"/>	<input type="checkbox"/>	Typically Developing population(s) under the maturity age *	Guardian Informed Consent Form

* Maturity age is defined by national regulations in laws of the country in which the research is being conducted.



5 f. Relationship between the principal investigator and participants.

Is there any relationship between the principal investigator (student), co-investigators(s), (supervisor) and participant(s)? For example, if you are conducting research in a school environment on students in your classroom (e.g. instructor-student).

☐ YES

☒ NO

If YES, specify (use the space provided in the box).

N/A

6. Potential Risks of the Proposed Research Study.

6 a. i. Are there any potential risks, psychological harm and/or ethical issues associated with the proposed research study, other than risks pertaining to everyday life events (such as the risk of an accident when travelling to a remote location for data collection)?

☐ YES

☒ NO

If YES, specify below and answer the question 6 a.ii.

N/A

6 a.ii Provide information on what measures will be taken in order to exclude or minimise risks described in 6.a.i.

N/A



6 b. Choose the appropriate option

	Yes	No
i. Will you obtain written informed consent form from all participants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Does the research involve as participants, people whose ability to give free and informed consent is in question?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Does this research involve participants who are children under maturity age? If you answered YES to question iii, complete all following questions. If you answered NO to question iii, do not answer Questions iv, v, vi and proceed to Questions vii, viii, ix and x.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Will the research tools be implemented in a professional educational setting in the presence of other adults (i.e. classroom in the presence of a teacher)?	<input type="checkbox"/>	<input type="checkbox"/>
v. Will informed consent be obtained from the legal guardians (i.e. parents) of children?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vi. Will verbal assent be obtained from children?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
vii. Will all data be treated as confidential? If NO, explain why confidentiality of the collected data is not appropriate for this proposed research project, providing details of how all participants will be informed of the fact that any data which they will provide will not be confidential.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
viii. Will all participants /data collected be anonymous? If NO, explain why and describe the procedures to be used to ensure the anonymity of participants and/or confidentiality of the collected data both during the conduct of the research and in the subsequent release of its findings.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Yes	No
ix. Have you ensured that personal data and research data collected from participants will be securely stored for five years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
x. Does this research involve the deception of participants? If YES, describe the nature and extent of the deception involved. Explain how and when the deception will be revealed, and who will administer this debrief to the participants:	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6 c. i. Are there any other ethical issues associated with the proposed research study that are not already adequately covered in the preceding sections?

☐ Yes ☒ No

If YES, specify (maximum 150 words).

6.c.ii Provide information on what measures will be taken in order to exclude or minimise ethical issues described in 6.c.i.

N/A

6 d. Indicate the Risk Rating.

☐ High ☒ Low



7. Further Approvals

Are there any other approvals required (in addition to ethics clearance from UREC) in order to carry out the proposed research study?

☐ YES ☒ NO

If YES, specify (maximum 100 words).

8. Application Checklist

Mark ✓ if the study involves any of the following:

- ☐ Children and young people under 18 years of age, vulnerable population such as children with special educational needs (SEN), racial or ethnic minorities, socioeconomically disadvantaged, pregnant women, elderly, malnourished people, and ill people.
- ☐ Research that foresees risks and disadvantages that would affect any participant of the study such as anxiety, stress, pain or physical discomfort, harm risk (which is more than is expected from everyday life) or any other act that participants might believe is detrimental to their wellbeing and / or has the potential to / will infringe on their human rights / fundamental rights.
- ☐ Risk to the well-being and personal safety of the researcher.
- ☐ Administration of any substance (food / drink / chemicals / pharmaceuticals / supplements / chemical agent or vaccines or other substances (including vitamins or food substances) to human participants.
- ☐ Results that may have an adverse impact on the natural or built environment.

9. Further documents

Check that the following documents are attached to your application:

		ATTACHED	NOT APPLICABLE
1	Recruitment advertisement (if any)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Informed Consent Form / Guardian Informed Consent Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Research Tool(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Gatekeeper Letter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Any other approvals required in order to carry out the proposed research study, e.g., institutional permission (e.g. school principal or company director) or approval from a local ethics or professional regulatory body.	<input type="checkbox"/>	<input checked="" type="checkbox"/>



10. Final Declaration by Applicants:

- (a) I declare that this application is submitted on the basis that the information it contains is confidential and will only be used by Unicaf University for the explicit purpose of ethical review and monitoring of the conduct of the research proposed project as described in the preceding pages.
- (b) I understand that this information will not be used for any other purpose without my prior consent, excluding use intended to satisfy reporting requirements to relevant regulatory bodies.
- (c) The information in this form, together with any accompanying information, is complete and correct to the best of my knowledge and belief and I take full responsibility for it.
- (d) I undertake to abide by the highest possible international ethical standards governing the Code of Practice for Research Involving Human Participants, as published by the UN WHO Research Ethics Review Committee (ERC) on <http://www.who.int/ethics/research/en/> and to which Unicaf University aspires to.
- (e) In addition to respect any and all relevant professional bodies' codes of conduct and/or ethical guidelines, where applicable, while in pursuit of this research project.



I agree with all points listed under Question 10

Student's Name: NELSON DUNCAN KHORIYO

Supervisor's Name: Dr Mary Mutete Mwanzia

Date of Application: 3 January 2022

Important Note:

Save your completed form (we suggest you also print a copy for your records) and then submit it to your UU Dissertation/project supervisor (tutor). **In the case of student projects, the responsibility lies with the Faculty Dissertation/Project Supervisor.** If this is a student application, then it should be submitted via the relevant link in the VLE. Please submit only electronically filled in copies; **do not** hand fill and submit scanned paper copies of this application.

Appendix C: Informed Consent Form



UU_IC - Version 2.1

Informed Consent Form

Part 1: Debriefing of Participants

Student's Name: NELSON DUNCAN KHORIYO

Student's E-mail Address: nelsonkhoriyo@gmail.com

Student ID #: R1702D2343911

Supervisor's Name: Dr Mary Mutete Mwanzia

University Campus: Unicaf University Malawi (UUM)

Program of Study: PhD Doctorate of Philosophy-Business Administration

Research Project Title: Factors influencing adherence of procurement best practise implementation along district councils in Malawi

Date: 3 January 2022

Provide a short description (purpose, aim and significance) of the research project, and explain why and how you have chosen this person to participate in this research (maximum 150 words).

The Specific Objectives:

- (a) To examine the effect of procurement policies on effective implementation of public procurement practices in district assemblies in Malawi.
- (b) To determine how management of inventory in district assemblies impact on effective public procurement practice implementation in Malawi.
- (c) To investigate the levels of training acquired by the stakeholders within the local councils and their impact on implementation of public procurement practices in Malawi.
- (d) To assess the level of system automation infrastructure within the district assemblies and their impact on enhancing public procurement practice in Malawi.

The findings of this study will assist in providing more information regards to the public procurement implementation practices adherence among the stakeholders in District assemblies and the Country at large which will in turn reduce loss of revenues through maverick procurement practices thereby improving service deliveries along the District Councils in Malawi.

The participant in this study has been purposefully selected to be part of the research based on the fact that the participant is directly involved in the procurement management at the Blantyre District Council and his inclusion is vital to correct data for the project.

The above named Student is committed in ensuring participant's voluntarily participation in the research project and guaranteeing there are no potential risks and/or harms to the participants.

Participants have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In these cases, data collected will be deleted.

All data and information collected will be coded and will not be accessible to anyone outside this research. Data described and included in dissemination activities will only refer to coded information ensuring beyond the bounds of possibility participant identification.

I, NELSON DUNCAN KHORIYO, ensure that all information stated above is true and that all conditions have been met.

Student's Signature: NELSON DUNCAN KHORIYO



Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant(s)

Student's Name: NELSON DUNCAN KHORIYO

Student's E-mail Address: nelsonkhoriyo@gmail.com

Student ID #: R1702D2343911

Supervisor's Name: Dr Mary Mutete Mwanzia

University Campus: Choose from the list

Program of Study: PhD Doctorate of Philosophy-Business Administration

Research Project Title: Factors influencing adherence of procurement best practise implementation along district councils in Malawi

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that I am free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of my participation to this study. I understand that my data will remain anonymous and confidential, unless stated otherwise. I consent voluntarily to be a participant in this study.

Participant's Print name:

Participant's Signature: _____

Date:

If the Participant is illiterate:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had an opportunity to ask questions. I confirm that the aforementioned individual has given consent freely.

Witness's Print name:

Witness's Signature: _____

Date:

Appendix D: Questionnaire

FACTORS INFLUENCING ADHERENCE TO PUBLIC PROCUREMENT PRACTICES AMONG CITY COUNCILS IN MALAWI

Questionnaire for a Doctor of Philosophy (PhD) in Business Administration

My name is Nelson Duncan Khorio, a candidate in pursuit of Doctor of Philosophy (PhD) in Business Administration with UNICAF University. I am currently conducting a research study to fulfil one of the core requirements of the doctoral programme titled: **Factors influencing adherence of public procurement practice implementation among city councils in Malawi.** You have been selected to participate in this study as a respondent. I would like to request you, therefore, to complete this questionnaire which seeks to collect data on procurement patterns, norms, tendencies, and behaviour at the City Council. The information that will be collected in this research project will be used exclusively for the purposes of the said project. No piece of information herein collected shall be used, in part or in its entirety, for purposes other than that of my PhD project. Further, the data will be treated with absolute confidentiality. To achieve confidentiality, I propose that we settle for anonymity, in which case you will be required to use a pseudonym instead of your real name.

Section A: Respondent bio data

Pseudonym (fictitious name)

Respond to the rest of the questions in this section by ticking in the appropriate box as it pertains to you or by writing in the spaces provided as the case might be.

1. Age

2. Gender

i) Male ☐

ii) Female ☐

iii) Prefer not to say ☐

3. Nationality

i) Malawian ☐

ii) Non-Malawian ☐

4. Academic qualifications

i) MSCE ☐

ii) Professional certificate ☐

iii) Diploma ☐

iv) Bachelor's degree ☐

v) Master's degree ☐

vi) PhD ☐

5. Number of Years you have been in the Organisation

6. Number of Years the City Council has been in Operation

7. Have you received any formal training in procurement?

i) Yes ☐

ii) No ☐

8. What is your highest qualification in the field of procurement?

i) Certificate ☐

ii) Diploma ☐

iii) Chartered procurer ☐

iv) Bachelor's degree ☐

v) Master's degree ☐

vi) PhD ☐

9. What other qualifications in procurement do you possess?

10. When did you attain your most recent qualification in procurement?

11. Did the City Council sponsor your training?

i) Yes ☐

ii) No ☐

12. If yes, why did they sponsor your training?

13. Are there short courses or other forms of training in procurement organised by the City Council for its personnel involved in the procurement process?

i) Yes ☐

ii) No ☐

14. Have you attended any of them?

i) Yes ☐

ii) No ☐

15. If yes, when was the last time you attended one?

16. Have you attended any self-sponsored training in procurement while working at City Council?

i) Yes ☐

ii) No ☐

17. What inspired you to pursue that training?

18. What were the key issues and topics in procurement that were taught at the in-service training seminars you attended recently whether organised by the City Council or out of your own interest?

19. For how long have you served in the department of procurement?

20. What are the routine roles and responsibilities in the procurement system that are assigned to you at the City Council?

21. What other tasks in procurement are delegated to your office?

22. If it is applicable to you, how often are you assigned to carry out these tasks?

i) At least once a week ☐

ii) At least once a month ☐

iii) At least once a year ☐

Section B: The City Council procurement systems

Procurement technologies and innovations

23. Do you have any of the following modern procurement technologies and innovations currently in use at City Council?

i) Yes ☐

ii) No ☐

23b. If yes are the following technologies available at city councils?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Procurement technology					
	1	2	3	4	5
Online bidding					
Internet market place					
Electronic data interchange					
Electronic procurement					
Electronic mail					
Cloud-based procurement software					

Micro-services and low-code platforms					
Process automation					
Self-service portals					

23c. What tasks and transactions exactly do you use these technologies for?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Use of technology

Variables	1	2	3	4	5
Processing of LPOs and Contracts					
Processing of Purchase requisitions					
Collection of quotations					

23d. Any other use (specify)

24. For how long have you been using the current procurement technologies?

25. What alternatives have you been using prior to the introduction of the technologies currently in use?

26. Is there any significant difference in the performance of the procurement system before and after the introduction of the procurement technologies currently in use?

i) Yes ☐

ii) No ☐

27. If yes, please specify what the noticeable differences are

Inventory management

28. What types of inventories does the City Council possess on a regular basis?

i) Raw materials ☐

ii) Works-in-process ☐

iii) maintenance, repair and operations ☐

iv) Finished goods ☐

v) All of them ☐

29. Are there any inventory management policies at the City Council?

i) Yes ☐

ii) No ☐

Inventory Management Practices at the city councils

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Inventory management technique					
	1	2	3	4	5
The council has strong inventory management tools and strategies in place					
Procurement is guided by vibrant inventory management principles					
Inventory management is regulated by sound policies					
Inventory management is enhanced by modern technologies					

30. What tools and strategies does the City Council employ to order its stock?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Tools and strategies used by City Councils to order stock

Variables	1	2	3	4	5
LPO or Contract is used to order goods					
The IPDC approves the requirements prior to the issue of LPO or Contract					

Items ordered are on the Annual Procurement Plan					
Re-order Levels are pre-determined					
PPDA is involved towards approving procurements					

31. Any other strategies or tools used

32. What tools and strategies does the City Council employ to store its stock?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Tools and strategies used by the City Council to store its stock

Variables	1	2	3	4	5
Goods Received Notes are issued					
Items are inspected by the inspection team					
Warehouse is used to store items					
Accounting system is used to capture received goods					
Users are notified of the ordered materials					

33. Any other tools and strategies

34. What strategies and tools does the City Council employ to deliver or issue its stock?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Tools and strategies used by the City Council to deliver or issue its stock

Variables	1	2	3	4	5
Stores issue notes are issued					
Bin Cards are update					
Re-order levels are established and monitored					

35. Any other tools and strategies

36. What strategies and tools does the City Council employ to track its stock?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Variables	1	2	3	4	5
Just in Time Strategy					
Push Demand Management system					
Pull Demand Management system					

37. Any other strategies

38. What inventory management principles does the City Council Operate on to manage its inventory?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Variables	1	2	3	4	5
Demand Forecasting					
Warehouse Flow					
Inventory turns/stock rotation					
Cycle Outing					
Process Auditing					

39. Any other strategies

40. What inventory control software or technologies has the City Council installed?

41. How conversant are you with these technologies?

i) Moderately conversant ☐

ii) Quite conversant ☐

iii) Conversant ☐

iv) Very conversant ☐

42. When were they installed?

i) Within 12 months ago ☐

ii) Within 24 months ago ☐

iii) Within 36 months ago ☐

iv) With 48 months ago ☐

v) Five years or more ago ☐

43. Why were they installed?

44. What significant impact has the introduction of the software brought along?

45. Does the City Council operate under any inventory management policies?

i) Yes ☐

ii) No ☐

46. Who enacted these policies and regulations?

47. Are they stipulated in black and white in any book?

i) Yes ☐

ii) No ☐

48. If yes, please mention the book

49. What are the core purposes of these inventory management policies?

50. For how long have they been in force?

51. When they were last modified or amended?

52. Why were they modified or amended?

Supplier relations

53. Who are the suppliers of the core stock at the City Council?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Variables	1	2	3	4	5
Large scaled suppliers					
Small and medium enterprise					
Medium Enterprise Suppliers					

54. Any other group of suppliers

55. How strong is the relationship between City Councils and these suppliers?

i) Very weak ☐

ii) Weak ☐

iii) Strong ☐

iv) Very strong ☐

56. What measures has the City Council put in place to build strong supplier relationships?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Variables	1	2	3	4	5
Early involvement of suppliers prior to the tendering					

Use of framework agreement with routine suppliers					
Establishment of affordable payment terms					
Extension of contracts with suppliers based on performance					

57. Any other measures put in place to build strong supplier relationships

58. If at all it does, why does the City Council endeavour to strengthen the relationship it has with suppliers? Cite any instances where each of these benefits has been experienced in reality by the City Council.

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Benefits of Strong Supplier relationship

Variables	1	2	3	4	5
Quality products					
Affordable Payment terms					
Reduced Lead time					
Corporate Social Responsibility					
Eliminating Fraud and Corruption					

59. Cite any other benefits not indicated above

60. How transparent is the procurement process at the City Council?

- i) Not transparent at all
- ii) Transparent
- iii) Very transparent

61. What mechanisms has the City Council employed to ensure and enhance transparency of its procurement system?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Variables	1	2	3	4	5
Utilise Open tendering systems					
Use of framework agreements					
Use of approved Evaluation Committees					
Ensuring that all procurements are approved by the IPDC					
Evaluation to be done in line with the criteria's					
Provision of equal information to all bidders					
Engagement of Finance to endorse LPO to ensure funds availability					
Inspection of goods prior to the receipt					

62. Any other measures

63. If at all it is applicable, what prompted the City Council to promote transparency in the procurement system?

64. Does the City Council employ the multi-sourcing strategy?

- i) Yes ☐
- ii) No ☐

65. If yes, cite instances where the multi-sourcing strategy is/was adopted.

66. Why does it use the multi-sourcing strategy?

67. Does the City Councils have a centralised contract and documentation hub?

- i) Yes ☐
- ii) No ☐

68. If it is applicable, what does this hub consist of?

69. Why did the City Council establish a centralised contract and documentation hub?

70. Are you aware of any procurement and finance regulations and instruments enacted by governing bodies and/or upheld by the constitution of the Republic of Malawi?

i) Yes ☐

ii) No ☐

71. On a scale of 1 to 5 how do you rate your knowledge procurement and finance regulations and instruments

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Variables	1	2	3	4	5
Public Procurement and Disposal of Assets Act of 2017					
Public Procurement Act of 2003					
The Public Finance Management Act of 2003					
The Audit Act of 2003					
The Procurement Regulations					

72. Please list some of these regulations if not indicated above

73. What measures do/have you put in place as an individual to make sure that you observe these regulations?

74. Do city councils follow the following procurement policies and practices?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Procurement Policy					
	1	2	3	4	5
Transparency Procurement Process					
Centralised contract and documentation hub					
Open competition during bidding processes					
Ad hoc evaluation teams always evaluate bids					
Regulatory monetary thresholds for procurement functions are always enforced					
No discrimination when evaluating bids and awarding contracts					
Anonymity is observed when evaluating bids					

No procurement contract between City Council and its employees					
No award of contracts to relatives and friends					
Open tender proceedings					
The involvement of ACB in single source procurements					
Invitations to tender are always advertised in at least two popular newspapers					
All interested eligible bidders are always issued bid documents					
Regular Audits on Procurement processes					

75. What do you believe are the benefits of observing procurement regulations as an individual?

1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Disagree

Variables	1	2	3	4	5
Enables Compliance to Laws					
Reduces Fraud and Corruption					
Promote the SMEs					
Leads to transparency on the use of public funds					
Results in quality materials as capable suppliers are selected					

76. Any other benefits

77. What are the deliberate efforts made by the City Council specially to ensure observance of procurement regulations among its personnel?

78. Why does the City Council promote observance of procurement regulations among its human resource involved in the procurement process?

**End of the questionnaire. Thank you for your courtesy to participate in this study,
and for your honesty.**

Appendix 1: Interview questions for the Participants

DOCUMENT 2: INTERVIEW QUESTIONS FOR THE PARTICIPANTS

These interviews were designated for the participants and particularly, the interviews are meant to help the researcher follow up on findings made during data collection from the questionnaire as regards observance of public procurement practices. For instance, the researcher required to establish why certain decisions were made in the procurement process, more so, when the researcher thinks there were alternative options. Focus on this quest was placed on why there was adherence or non-adherence to public procurement practices during selected procurement activities as the circumstances present themselves. This helped the researcher to account for factors that influence adherence to public procurement practices at the City Councils.

Section 1: Demographic Factors

1. Age

2. Gender
 - i) Male
 - ii) Female
 - iii) Prefer not to say

3. Nationality
 - i) Malawian
 - ii) Non-Malawian

4. Academic qualifications
 - i) MSCE
 - ii) Professional certificate
 - iii) Diploma
 - iv) Bachelor's degree
 - v) Master's degree

vi) PhD ☐

5. Number of Years you have been in the Organisation

6. Number of Years the City Council has been in Operation

7. Have you received any formal training in procurement?

i) Yes ☐

ii) No ☐

8. What is your highest qualification in the field of procurement?

i) Certificate

ii) Diploma

iii) Chartered procurer

iv) Bachelor's degree

v) Master's degree

vi) PhD

Section 2: Key Interview Questions

1. Effectiveness of implementation of public procurement policies. (15 Minutes)

- (a) What is the level of procurement policies on effective implementation of public procurement practices at city councils in Malawi?
- (b) What are the core purposes of the inventory management policies at city councils?

2. Impact of management of inventory at city councils. (20 Minutes)

- (a) How does management of inventory at city councils impacts on effective public procurement practice implementation in Malawi?

3. Training acquired by the stakeholders within the local councils and their impact on implementation of public procurement practices in Malawi. (15 Minutes).

- (a) What type of short courses or other forms of training in procurement do the City Council provide for its personnel involved in the procurement process?
- (b) What is the level of training acquired by the stakeholders within the local councils and their impact on implementation of public procurement practices in Malawi?

4. To assess the level of system automation infrastructure at the city councils and their impact on enhancing public procurement practice in Malawi (15 Minutes)

- (a) What is the level of system automation infrastructure at the city councils and their impact on enhancing public procurement practice in Malawi?
- (b) What are the modern procurement technologies and innovations currently in use at City Council?
- (c) What alternatives have you been using prior to the introduction of the technologies currently in use?

d) Any other (specify:

5 Procurement plan

- a. Is the procurement plan generated in line with the annual procurement budget? **Why?**
- b. Does the procurement plan spell out the payment plan? **Why?**
- c. Does the procurement plan have a clearly designated delivery period? **Why?**
- d. Does the procurement plan have any measures of countervailing the effects of unforeseeable challenges in the supply chain such as Covid-19 pandemic? **Why?**
- e. Does the procurement plan take into account the generic user-specifications of the products and services that had to be procured? **Why?**

6 Bid document

- a. Does it clearly state the deadline for submission of tenders among bidders? **Why?**
- b. Does it adhere to the recommended periods stipulated in the Procurement Act? **Why?**
- c. Does the bid document spell out the technical specifications as required by users? **Why?**
- d. Does it have clearly stated evaluation criteria? **Why?**
- e. Does it indicate the delivery period? **Why?**
- f. Does it spell out specific conditions required in the bidding process such as payment period, dispute resolution and those intended to check corrupt practices and fraud? **Why?**

7 Tender opening minutes

- a. Are names of bidders clearly indicated? **Why?**
- b. Were they signed by all representatives? **Why?**
- c. Are there any bid security measures? **Why?**
- d. Do the minutes have the bidding value? **Why?**

8 Evaluation report

- a. Was the evaluation team formed in an ad hoc manner? **Why?**
- b. Was it formed by the IPDC? **Why?**
- c. Was it developed in tandem with the nature of the procurement process? **Why?**
- d. Did the team include a user of the product or service to guide the team on product or service specification? **Why?**
- e. Did the members of the evaluation team constitute an even number? **Why?**
- f. Was the number of the members less than five? **Why?**

- g. Did the team form a quorum? *Why?*

9 Minutes of IPDC meeting and the evaluation report

- a. Was the approving IPDC team formed by the C.E.O? *Why?*
- b. Did the IPDC consist of not more than seven people? *Why?*
- c. Did the members of the IPDC form a quorum? *Why?*
- d. Were the minutes of the IPDC evaluation meeting timely produced? *Why?*
- e. Were the minutes signed? *Why?*
- f. Did the IPDC have the autonomy to make the decision based on the available information without any external influence? *Why?*

10 Procurement contract (local purchase order).

- a. Does it have the product or service specifications? *Why?*
- b. Does it have a delivery period? *Why?*
- c. Does it have clearly stated terms and conditions for providing the service or the product? *Why?*
- d. Does it outline performance security details? *Why?*

Appendix 2: Document 3: Document analysis checklist

The checklist served to help the researcher determine the level of adherence to public procurement practices at the City Councils by analysing the documents used in selected procurement activities at the City Council. These documents include: the procurement plan, tender documents, minutes of bid opening, minutes of IPDC meetings, minutes of negotiation meetings, evaluation report, and the procurement contract (Local Purchase Order).

1. Procurement plan

- a. What was the budget of the procurement activity?
- b. Is the procurement plan generated in line with the annual procurement budget?
- c. Does the procurement plan spell out the payment plan?
- d. Does the procurement plan have a clearly designated delivery period?
- e. Does the procurement plan have any measures of countervailing the effects of unforeseeable challenges in the supply chain such as Covid-19 pandemic?
- f. Does the procurement plan take into account the generic user-specifications of the products and services that had to be procured?

2. Bid document

- a. Does it clearly state the deadline for submission of tenders among bidders?
- b. Does it adhere to the recommended periods stipulated in the Procurement Act?
- c. Does the bid document spell out the technical specifications as required by users?
- d. Does it have clearly stated evaluation criteria?
- e. Does it indicate the delivery period?
- f. Does it spell out specific conditions required in the bidding process such as payment period, dispute resolution and those intended to check corrupt practices and fraud?

3. Tender opening minutes

- a. Are names of bidders clearly indicated?
- b. Were they signed by all representatives?
- c. Are there any bid security measures?
- d. Do the minutes have the bidding value?

4. Evaluation report

- a. Was the evaluation team formed in an ad hoc manner?
- b. Was it formed by the IPDC?
- c. Was it developed in tandem with the nature of the procurement process?
- d. Did the team include a user of the product or service to guide the team on product or service specification?
- e. Did the members of the evaluation team constitute an even number?
- f. Was the number of the members less than five?
- g. Did the team form a quorum?

5. Minutes of IPDC meeting and the evaluation report

- a. Was the approving IPDC team formed by the C.E.O?
- b. Did the IPDC consist of not more than seven people?
- c. Did the members of the IPDC form a quorum?
- d. Were the minutes of the IPDC evaluation meeting timely produced?
- e. Were the minutes signed?
- f. Did the IPDC have the autonomy to make the decision based on the available information without any external influence?

6. Procurement contract (local purchase order).

- a. Does it have the product or service specifications?
- b. Does it have a delivery period?
- c. Does it have clearly stated terms and conditions for providing the service or the product?
- d. Does it outline performance security details

7. Inventory Management System

- a. Do the inventory systems have a bin card?
- b. Do the inventory management systems have goods receive notes?
- c. Do the inventory management systems have goods issue notes?
- d. Are the bin cards; goods receive notes and goods issue notes in balance

8. Adoption of Public procurement modern technologies

- a. Do city councils generate purchase requisitions electronically?
- b. Do city councils generate Local Purchasing Orders (LPOs) electronically?