

**DETERMINANTS OF PERFORMANCE OF
PROCUREMENT DEPARTMENTS IN PUBLIC ENTITIES
IN TANZANIA**

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Entities in Tanzania**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

Signature Date

Noel Peter Mrope

This thesis has been submitted for examination with our approval as University Supervisors.

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DEDICATION

This Thesis is dedicated to my father the late **Peter Raymond Mrope** who passed away exactly a week after I had completed a course work stage of this study. You are still remembered for your humility, patience and kindness. Rest in eternal peace my dear father.

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ABBREVIATIONS AND ACRONYMS

ADB	African Development Bank
AMA	American Management Association
ANOVA	Analysis of Variance
APP	Annual Procurement Plan
BLIs	Base Line Indicators
CAG	Chief Auditor General
CIPS	Chartered Institute of Purchasing and Supply
CPAR	Country Procurement Assessment Report
CPIs	Compliance/Performance Indicators
CTB	Central Tender Board
DAC	Development Assistance Committee
DPPP	Directorate of Public Procurement Policy
ERB	Engineering Registration Board
EU	European Union
FY	Financial Year
GDP	Gross Domestic Product

GPSA	Government Procurement and Services Agency
ICT	Information and Communication Technology
JKUAT	Jomo Kenyatta University of Agriculture and Technology
LGAs	Local Government Authorities
MAPS	Methodology for Assessing Procurement Systems
MDGs	Millennium Development Goals
NBAA	National Board of Auditors and Accountants
NBMM	National Board for Materials Management
NEEC	National Economic Empowerment Council
ODA	Official Development Assistance
OECD	Organisation for Economic Committee Development
PEs	Procuring Entities
PMU	Public Procurement Unit
PPA	Public Procurement Act
PPAA	Public Procurement Appeals Authority
PPOA	Public Procurement Oversight Authority – (in Kenya)
PPP	Public Private Partnership

PPPD	Public Procurement Policy Division
PPRA	Public Procurement Regulatory Authority – (in Tanzania)
PSPTB	Procurement and Supplies Professionals and Technicians Board
RAS	Regional Administrative Secretary
TTB	Tanzania Tourist Board
UK	United Kingdom
UNCITRAL	United Nations Commission on International Trade Law
UNDP	United Nations Development Program
URT	United Republic of Tanzania

DEFINITION OF KEY TERMS

In this study, unless otherwise stated, the operational definitions for the key terms and concepts used are as follows:

Integrity: Integrity is defined as the use of funds, resources, assets and authority, according to the intended official purposes and in line with public interest. It is the state of being honest and having moral principles (OECD, 2008).

Legal framework: It refers to the entire set of legal instruments that contains rules concerning the process of acquiring goods, works and services by public sector entities. Usually, it includes also institutional arrangements required to ensure the proper implementation of these rules. Some countries have laws and others may have Acts, Decrees, circulars or Regulations (OECD, 2010).

Organizational Performance: Performance refers to the end result of an activity. Organizational Performance on the other hand, is defined as the accumulated results of an organization's work activities (Robins, 2009)

Public procurement: Public procurement is defined as purchasing, hiring or obtaining by any other contractual means of goods, works and services by a public entity using public funds (World Bank, 2004).

Procuring entity: Procuring entity means a public body and any other body or unit established and mandated by government to carry out public functions (PPA, 2011).

Procurement Management Unit: Procurement management unit means a division or a department in each procuring entity responsible for the execution of the procurement functions (PPA, 2011).

Procurement Performance: Procurement performance is defined by how ‘well’ its *process* is conducted and how ‘good’ the *outcome* is (Sabine, 2004).

Procurement process: Procurement process as refers to the successive stages in the procurement cycle, including planning, choice of procedures, measures to solicit offers from bidders, examination and evaluation of those offers, award of contract and contract management (PPA, 2011).

Transparency: Transparency, in the context of public procurement, refers to the ability of all interested participants to know and understand the actual means and processes by which contracts are awarded and managed by the concerned procurement entity (Sudhir, 2004).

Value for Money Procurement: Value for money procurement refers to the best available outcome when all relevant costs and benefits over the procurement cycle are considered (Sudhir, 2004). It is associated with the *effectiveness* and *efficiency* of a product, service or process.

ABSTRACT

The central focus of this study was to determine factors influencing performance of the procurement function in the Tanzanian public sector. In conjunction with this general objective, specific objectives were to evaluate the effect of legal and regulatory framework; to assess the effect of procurement professionalism; to determine the effect of private sector participation; to investigate the effect of transparency and to find out the effect of integrity on the performance of procurement departments. The research design employed was a mixed (qualitative and quantitative) design. The target population was 298 entities that were audited between the 2011/2012 – 2013/2014 FY. One hundred (100) entities constituted the sample size with 300 Questionnaire Respondents and 20 Interviewees. Data were mainly collected through self-administered questionnaires and interview guide. The questionnaires were pilot tested in 10 procuring entities. In analysing the data both descriptive and inferential analyses were applied. Inferential analysis involved running two regression models using the same predictors but with different indicators of the dependent variable. The objective was to establish the indicators that best measure the performance of the procurement function - which was the dependent variable. Three theories underpinning public procurement were adopted in this study. These are Institutional Theory, Principal –Agent Theory and Legitimacy Theory. The findings indicate that performance of public procurement in Tanzania is influenced by the existing legal framework, procurement professionalism, private sector participation and the level of integrity in the procurement process. Furthermore, the study has established that performance of procurement in the public sector is best and appropriately measured in terms of achievements of the procurement objectives measured in relation to timely delivery, best quality and best price/cost of the procured goods, services and works. However, the study has revealed that late payments to suppliers, political interferences and inflated prices quoted by GPSA shortlisted bidders, are the common hindrances to the achievement of procurement objectives in most of the procuring entities. Several recommendations have been made

with a view to improving performance of the procurement function in public entities in Tanzania. It is recommended that the PPRA should review the current checklist for monitoring and evaluating the procurement performance in the entities. Specifically, the checklist should focus on attainment of the procurement objectives as opposed to the current emphasis on compliance with rules and regulations. Furthermore, the procurement policy division responsible for procurement cadres in the country in collaboration with the procurement professional body should foster capacity building among procurement professionals as a way of maintaining and enhancing procurement professionalism within the country's procurement system.

CHAPTER ONE

INTRODUCTION

1.1 Background

This chapter provides information on background of the study. Mainly the chapter covers an overview of the public procurement, statement of the problem, research objectives, research questions, and hypotheses of the study, justifications of the study, scope and limitations of the study. The central focus of the study was to determine factors influencing performance of procurement departments in the public entities in Tanzania. Five independent variables were considered for the study, and these were legal and regulatory framework of the public procurement system in place, procurement professionalism, private sector participation, transparency in the procurement process, and integrity in the procurement process.

Procurement refers to all activities involved in identification, acquisition and receipt of goods, works and services required by an organisation. It is public whenever such activities are carried out by public entities or by other entities on behalf of or funded by public entities (Adotevi, 2004; Arrowsmith, 2010). As a government function, public procurement entails and responsible for provision of social services required by the community they serve (Hughes 2005, OECD 2006). It is therefore true to say that inefficient procurement decreases and denies the strategic importance of sound procurement from being realised by citizens, and consequently, peoples' confidence and trust in their elected governments to deliver the required goods and services is lowered (OECD, 2010).

One of the obvious facts about public procurement is the huge amount of money the entities spend through procurement. Many of the organisations within the public sector have expenditures which are vast compared even with some of the large private sector

organisations. Inevitably, the governments are the biggest “spenders” worldwide. For example, public procurement accounts for 60% of the Kenya’s public spending (Akech, 2005), 70% in Uganda and Tanzania (Basheka & Bisangabasaija, 2010; Mlinga 2007), 58% in Angola and 40% in Malawi (Witting, 1999). Obviously, the figures differ institution-wise, sector-wise and country-wise, but various sources (Callender & Mathews, 2000; Knight *et al.*, 2003; Mahmood, 2010) indicate that government spending on public services accounts for anywhere between 15 – 45% of Gross Domestic Product (GDP).

The World Bank Procurement Review (2004) indicated that United Kingdom spends about 16% of GDP, Ghana spends 13%, Nigeria spends 13%, and Sierra Leone spends 16% .on procurement. In the European Union (EU), public procurement accounted for EUR 2100 billion in 2009, or 19% of GDP (SIGMA, 2011). Obviously, the sheer amount of this spending has a huge impact on the economy. It is no wonder that procurement in the public entities has drawn public attention and debate which have resulted into, among others, reforms, restructuring, rules and regulations. On the other hand, the levels of public procurement expenditure provide for a sound justification for assessing its operations and analysing its performance at all levels (Thai, 2009).

Developing countries and donors have thus recognised that effective and efficient procurement system not only ensures economical use of public funds but also contributes in absolute terms to the achievement of the organisational, national and millennium development goals (MDGs) (OECD, 2010). However, effectiveness in the use of public funds on the other hand, requires the presence of robust national procurement system and which to a large extent complies with international standards (www.oecd.org/dac/effectiveness/procurement).

Measuring and determining performance of the procurement function is important for all organisations, the public sector in particular (Mlinga, 2007). Performance measurement makes it possible for the procurement activities to be monitored, controlled and managed

(Lysons & Farrington, 2012; Moti, 2015). Performance measurement encourages improved performance as procurement staff are recognised and motivated through reports of actual performance (Baily *et al.*, 2015). Since the 1930, practitioners, academicians and researchers started to pay great attention on performance of the procurement function (Kakwezi & Nyeko, 2010). The American Management Association (AMA) funded a survey in 1962 to assess performance of the procurement function. In the 1970 and the 1980s, scholars conducted independent studies in America and Dutch companies on purchasing performance in which they established scores of performance (Van Weele *et al.*, 2010).

In 2004, the Procurement Round Table under the auspices of the joint World Bank and OECD/DAC and developing countries developed a set of tools and standards that provide guidance for improvement in public procurement systems and the results they produce. The round table initiatives culminated with the December 2004 adoption of the Johannesburg Declaration (www.oecd.org/dataoecd/). Two types of tools were developed by the round table namely the Baseline Indicators or the Four Pillars model and the Compliance Indicators. Whereas the formers assess the procurement system at the national level, the latter is just a monitoring mechanism to ensure that the adopted system actually works. The Baseline indicators which essentially are the basis of the assessment criteria contain a set of checklists which are internationally accepted. These include but not limited to legal framework, regulatory framework, institutional capacity, supply market profile, ethics and ethical behaviour, transparency and integrity. Tanzanian, like other developing countries has adopted the Compliance and Performance indicators with the purpose of creating a system that can allow country to assess its procurement system.

1.1.1 Performance of Public Procurement

Despite spending a substantial amount of public financial resources and a number of reforms, inefficient and ineffective public procurement has been an issue of great

concern in many countries in the world (Namusonge, 2011; Carol *et al.*, 2014). In India, public procurement is faced by a number of problems including lack of standardisation and proper documentation, lack of professional skills in procurement and malpractices (Schnequa & Alexandru, 2012). In Zambia while the public procurement is governed by the Zambian National Tender Board Act, the procurement law does not provide for open competitive bidding, there is no prequalification procedures, no procurement plans for most of government procurement and lack of established norms for safekeeping of procurement records (OECD, 2008).

A study by the World Bank in Kenya showed that the public procurement in Kenya lacked transparency, fair competition, professionalism and professional body. According to the study, the public procurement system in Kenya was not operating efficiently and that the country was losing a lot of public money through shoddy deals. All these led to ineffective public procurement associated with rampant corruption (PPOA, 2007). A study carried out to assess the public procurement in Uganda revealed that the legal framework for public procurement in the country was not supportive; the law was fragmented and inadequate. The study further revealed that there were malpractices and lack of professional body to regulate the actions of the procurement professionals (Basheka, 2009)

The Tanzanian government commissioned the Crown Agents as a consultant to study the country's procurement system in 1996. The study revealed that the procurement system in the country was fragmented and there were no standard procurement procedures in place. Moreover, it was established that the procurement function was operating without standard tender documents and that at the national level there was no organ responsible for organising public procurement processes (CPAR- T, 2006).

Many governments have thus been undertaking procurement reforms with a view to reduce the cost of what the government buys and increasing the speed of transaction (Kadir, 2005; Krishna, 2005). Such reforms have led to establishment of public

procurement laws. In the region the procurement laws include The Kenyan Public Procurement and Disposal Act No 3 of 2005, The Malawi public Procurement Act No 12 of 2007, The Tanzania Public Procurement Act No 21 of 2004, The Uganda Public Procurement and Disposal of Public Assets Act of 2003 and Rwanda Law on Public Procurement Act, No, 12 of 2007. In some countries the procurement laws have also provided for the establishment of procurement oversight bodies responsible for promoting an efficient, effective and, transparent and accountable public procurement system. The most known procurement oversight bodies in the region are the Kenyan Public Procurement Oversight Authority (PPOA) and the Tanzanian Public Procurement Regulatory Authority (PPRA).

1.1.2 Overview of Public Procurement in Tanzania

The Public Procurement Act in Tanzania was enacted for the first time in 2001. Prior to this, there was no standard legal or regulatory framework guiding the procurement activities in the public sector (CPAR, 2007). In order to control Government funds utilised through the procurement function, various legal frameworks, regulations, rules and procedures were applied in the procurement process. In the Central Government, management and control of the public funds were guided by the then Exchequer and Audit Ordinance CAP 439 of 1961. The procurement process on the other hand, was conducted in accordance with the Financial Orders Part III (Stores Regulations), 5th Edition, of 1965. These Stores Regulations were provided for under Section 7 of the Exchequer and Audit Ordinance, CAP 439 of 1961.

In the Local Government Authorities, public procurement was guided by various legislations namely 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. In compliance with section 42 of the Local Government finance Act of 1982, the Urban Councils' Financial Memorandum was issued in 1983. Between 1967 and 2000, the Tanzanian economy was heavily dependent on state-owned

enterprises, popularly known as parastatal enterprises/organizations. Public procurement in parastatal enterprises / organizations was thus guided by the specific laws which established the respective parastatal organizations. In addition, each parastatal organization promulgated its own financial and procurement regulations.

The old procurement system as described above was characterised by major weaknesses in that the procurement procedures were found scattered in various statutes which had loopholes without enforceable penalties (OECD, 2007; CPAR, 2007). As part of the Government's strategy to strengthen the procurement system in the country, a consultant was commissioned by the government in 1992 to study the public procurement and supply management in Tanzania. The study found that public procurement system in Tanzania had serious shortfalls that required immediate intervention and reform (Nkinga, 2003). The main recommendations of the study included the need for establishment of the Procurement Law and its subsequent Regulations, strengthening of the Central Tender Board as a regulatory authority for all public procurement and Capacity building for all staff involved in the procurement process in order to improve performance (OECD, 2003; CPAR - T, 2007)

In response to the Consultants' report, the government of Tanzania enacted the Public Procurement Act No. 3 of 2001 (PPA 2001) as one of the measures to reform the public procurement system in the country. Among other provisions, this PPA 2001 provided for the establishment of the Central Tender Board (CTB) as the central coordinating body for public procurement activities. Subsequently, with effect from 2001 public procurement in Tanzania was governed by the PPA 2001 and its attendant Regulations. The public procurement regulations referred to here are Public Procurement (Selection and Employment of Consultants) Regulations Government Notice No. 137 and Procurement of Goods and Works Regulations, Government Notice No. 138 both published on 13th July, 2001. The Local Government Authorities (LGAs) used the regulations made under section 65 of the Local Government Finance Act 1982, the Local Government (Selection and Employment of Consultants) Regulations 2003

Government Notice No. 48 and the Local Government (Procurement of Goods and Works) Regulations 2003 Government Notice No. 49 both published on 21st March, 2003.

In 2004, the PPA 2001 was repealed in order to make better provisions for the regulations of procurement in the public entities and to provide for other related matters. This followed the recommendations by the World Bank that supported Consultants who carried out a country procurement assessment (CPAR (T), 2003). Some of the grounds for the enactment of the PPA 2004 include establishment of Regulatory Body for the management and regulation of procurement practices in the country, establishment of Public Procurement Appeals Authority (PPAA) responsible for handling of tender disputes, introduction of monetary thresholds, time limits and separation of powers and responsibility in the procurement process. As for the same grounds of making better provisions for the regulations of public procurement in the Government, the PPA 2004 was repealed in 2011. The new PPA 2011 was thus enacted replacing the former PPA 2004. Salient features in the PPA 2011, which indeed necessitated the repeal of the PPA 2004 include introduction of the Public Procurement Policy Division (PPPD) in the Ministry of Finance with the responsibilities of developing a national procurement policy, integration of the preparation of the Annual Procurement Plan (APP) with the financial budget process, elevation of the status of head of the procurement unit (department) and introduction of procurement under the public private partnerships (PPP) arrangements, among others.

According to the legal and institutional framework of public procurement in Tanzania, there are six (6) key players of the procurement system. These are Procuring Entities (PEs), Ministry of Finance, Public Procurement Regulatory Authority (PPRA), Public Procurement Appeals Authority (PPAA), Government Procurement and Services Agency(GPSA) and the Public Procurement Policy Division (PPPD). The framework requires these actors to work collaboratively with other government departments with specific technical expertise in the procurement of works, goods or services.

The above legal and institutional framework of public procurement in Tanzania sets the public procurement system whose aim is to ensure that procurement in the public entities is conducted in a fair, transparent, accountable and competitive manner. With the envisaged system in place, it was expected by the government, development donors and the citizens at large, that there would be improvement in the performance of procurement in the public entities in the country.

Despite the big spending in public procurement, still many procuring entities are not complying with the procurement proceeds and performance procedures as stipulated in the PPA and as per standard guidelines issued by the PPRA (Mlinga, 2008). Data available in PPRA Annual Reports and website (www.ppra.go.tz) show that there is huge expenditure through public procurement. For example, in the 2010/2011FY, 315 procuring entities were awarded about 142 thousand contracts whose total value was Tsh.4.5 trillion which was about 40.5% of the total government budget (TZ 2010/2011 Budget). These views are also supported by the Controller and Auditor General's Reports which indicates that procurement performance in most of the public entities is still poor as evidenced by non-adherence to procedures, unplanned procurement, procurement without contract(s), and inadequate qualified personnel (CAG, 2011).

The CAG report specifically indicates that the National Economic Empowerment Council (NEEC) procured air tickets worth Tsh. 25.7 million without using tender or GPSA system while, at Tanzania Tourist Board (TTB) procurement of various items costing Tsh.683. 4 million was made without applying a competitive method. In the 2010/2011 FY, the procurement audit revealed that in some of the public entities unplanned procurement were made contrary to section 45 of the PPA, 2004 and Reg.46 (5) of PPR G.N 97 of 2005. These are Mzumbe University procurement valued at Tsh.1.9 billion, Dodoma Urban Water Authority procurements valued at Tsh.2.5 billion and Tanzania Tourist Board procurement valued at Tsh.30.8 million all were made out of the approved procurement plans.

The fundamental question here is that, with the entire legal and institutional framework in place, what else could then influence the performance of procurement function in the public entities in Tanzania? This can only be answered through empirical studies. The above reports however, indicate performance levels and observed areas/ aspects of procurement in which procuring entities have been or still are performing poorly, but did not explain factors that influence such poor performance. And this constituted the main research problem of the study.

1.2 Statement of the Problem

The global significance of public procurement has been grown in recent years (Adams *et al.*, 2014). This has been so due huge financial resources that governments worldwide spend on public procurement (Ambe, 2012; Mahmood, 2010). The levels of expenditure coupled with its significance to the economic growth, provide for sound reasons for determining performance of the procurement function at all levels in its cycle (Arrowsmith, 2010; OECD, 2007). Currently, the performance of public procurement in Tanzania to a large extent has adopted the Methodology for Assessing Procurement Systems (MAPS) developed by the World Bank. However, the methodology has not been well documented, in that the MAPS tend to focus on compliance with the existing legal and regulatory framework – whether rules and procedures have been implemented (Agbesi, 2009; Marendi, 2015). There is little focus on quantifying performance, the actual returns to having applied process aimed achieving procurement goals of quality, timeliness and cost of the procured goods, works and services (Mady *et al.*, 2014; Ogachi, 2014).

Regardless of the efforts by the government of Tanzania to undertake public reform with a view to improving performance of the public sector entities, public procurement is still marred by shoddy works, partial or non-delivery of the required goods and services, poor quality goods and services, corrupt practices, incompetence, favouritisms and political interferences and influence (Pinda, 2011; CAG, 2014). Procurement function in

most of the public entities is not complying with procurement procedures and performance procedures as stipulated in the procurement law and its subsequent regulations. This has resulted in huge expenditure in public entities through the procurement function (Thuo & Njeru, 2014; Eyaa & Oluka, 2011). Performance of the procurement function in public entities therefore, has been attracting great attention from citizens, politicians and development donors. Public procurement has thus become an issue of public attention and debate (Mahmood, 2010; Arrowsmith, 2010).

Empirical studies on performance of procurement function in the public entities in Tanzania and the region have been carried out and well documented. In both published and unpublished studies, there is consensus that performance of the procurement function in most of the public entities is poor and inefficient (Maranda, 2015; Kechibi, 2012). At the entity level, the procurement system is still characterised by incompetence, negligence, inefficiency, and misconduct (Muriungi, 2014; Gichio, 2014), non-adherence to procedures, unplanned procurement, partial or untimely deliveries, and inadequate qualified personnel (Wahu *et al.*, 2015; Barasa, 2015; Ngeno, Namusonge & Nteere, 2014). Gesuka and Namusonge (2013) conducted a study on factors affecting compliance of public procurement regulations in Kenya. The study revealed that there is lack of professional knowledge on the procurement rules, regulations and ethics among the procuring entities. It was therefore concluded that stakeholders' unfamiliarity with rules and regulations have resulted into less compliant with the existing procurement legislations. Similar studies on public procurement have also been conducted by Mwangi and Kariuki, (2013) and Onyikwa *et al.* (2013); Marendi (2015); Wahu, Namusonge, Mungai and Chilion (2015).

However, in all of these studies the focus was to investigate factors influencing compliance with procurement rules and regulations in public entities but failed to explain the effect of compliance on the achievement of procurement objectives in the respective public entities. Besides that, in all of the reviewed previous studies, there is no comprehensive study that specifically focused on determinants of performance of

procurement departments assessed in terms of ‘achievement of procurement objectives’ in the public entities. The above knowledge gap formed the basis of our study in which it (the study) intended to bridge by determining factors that influence performance of procurement departments and establishing their relationships. By adopting the baseline procurement pillars proposed in the OECD- Four Pillars Model, the study has actually cascaded the methodology from the national level to the entity level -that’s a change of unit of analysis.

1.3 Research Objectives

The study composed of both general and specific objectives as elucidated below.

1.3.1 General Objective

The general objective of this study was to determine the factors that influence the performance of procurement function in public entities in Tanzania.

1.3.2 Specific Objectives

1. To evaluate the effect of Legal and Regulatory Framework on performance of procurement departments in Tanzania;
2. To assess the effect of Procurement Professionalism on performance of procurement departments in Tanzania;
3. To determine the effect of Private Sector Participation on performance of procurement departments in Tanzania;
4. To investigate the effect of Transparency in the procurement process on performance of procurement departments in Tanzania;
5. To find out the effect of Integrity in the procurement process on performance of procurement departments in Tanzania.

1.4 Research Hypotheses

This study was guided by the following null hypotheses that were subjected to statistical tests to determine their validity and therefore alignment to the research objectives. These were:-

1. H₀₁: There is no significant effect of Legal and Regulatory Framework on the performance of procurement departments in public entities in Tanzania.
2. H₀₂: There is no significant effect of Procurement Professionalism on the performance of procurement departments in public entities in Tanzania.
3. H₀₃: There is no significant effect of Private Sector Participation on the performance of procurement departments in public entities in Tanzania.
4. H₀₄: There is no significant effect of Transparency in the procurement process on the performance of procurement departments in public entities.
5. H₀₅: There is no significant effect of Integrity in the procurement process on the performance of procurement departments in public entities in Tanzania.

1.5 Justification and significance of the study

1.5.1 Justification of the Study

One of the knowledge gaps that exist in the study of procurement management, is on how best can the procurement function be assessed and how the assessment contributes to improved performance of the public departments in developing countries (Olugu & Wong, 2009). It is through performance assessment that it is easy to identify areas where the function is performing well, and where there is need for improvement (Kakwezi & Nyeko, 2010). It is in this premise that this research was carried out by providing a new case that may fill the vivid gap and more importantly add knowledge to existing literature on performance of the procurement function in public entities.

More specifically the study is justified by the following reasons:

a) Previous assessments using the MAPS baseline indicators did assess performance of the Tanzanian public procurement system at the national level identifying strengths and weaknesses. In contrary, this study assessed the performance of the Tanzanian public procurement at the departmental levels using some of the baseline indicators or pillars and establishing relationship among the determinants.

b) Furthermore, assessments on public procurement in Tanzania using the MAPS baseline indicators at the national levels have not come to the consensus on the proposed performance pillars/ indicators. This study was carried out at the departmental level so as to add knowledge to the existing body by looking for extra evidences until when consensus is reached.

c) Many of the previous empirical studies on performance of procurement in the Tanzanian public entities emphasised on compliance with the existing procurement laws and regulations. The present study intended to change the emphasis, - from ‘determinants of compliance’ to ‘determinants of performance’ at departmental level in the public entities. By adopting the national level indicators, the study actually determined the procurement performance at the operational level, and that indeed presents the paradigm shift from ‘compliance’ (process) management to ‘performance’ (outcome) management in the Tanzanian public procurement system.

1.5.2 Significance of the Study

1.5.2.1 Policy and Decision Makers

The outcomes of this work are in the form of policy implications which will be useful to the top leadership, both at national and institutional levels in Tanzania, of the benefits that will accrue from improved procurement performance in the public sector. Public entities play an integral part in the achievement of the Tanzanian 2025 vision.

Performance of the procurement function on the other hand will ensure that all projects and other economic goals are timely attained and realised. Any saving in procurement activities will have an absolute contribution to the national and institutional goals and objectives, both in short and long terms.

1.5.2.2 Regulatory and Professional Bodies

The findings of this study will assist the public entities in Tanzania to identify shortcomings in the procurement function and address the same by ensuring full implementation and compliance with the existing procurement law, regulations, procedures and instructions. For the PPRA as an oversight body the implication is that they should focus more on their statutory obligations specifically in administering and enforcing compliance with the provisions of the existing law, regulations, and guidelines issued from time to time. On the other hand, the PSPTB as a procurement professional body, must strive to enforce section 46(1) and (2) of its establishing law which prohibits employers from employing persons who are not registered by the PSPTB. The strategic importance of procurement in the public sector will only be realised if there is enforcement of the current provisions addressing on professional registration and accreditation.

1.5.2.3 Academic and Research institutions

For the Tanzanian academicians, scholars and researchers, the findings from this study may stimulate and pave a way for future studies in this area. Arrowsmith and Hartley (2002, p34) observed that despite of its desirability and economic importance, the field of public procurement still is under-researched area compared to other fields such as economists, lawyers and other social scientists. These views are also supported by Gesuka and Namusonge (2013) who conducted a study on factors affecting compliance of public procurement in Kenya, which was motivated by lack of studies on public procurement compliance in the country. This study may therefore, lay a theoretical

framework for future empirical studies on the factors determining performance of the public sector procurement in developing countries.

1.6 Scope of the Study

This study confined itself to the assessment of determinants of the performance of procurement departments in public entities in Tanzania. Specifically, the study determined the effects of legal and regulatory framework, the procurement professionalism, private sector participation, transparency and integrity in the procurement process on performance of procurement departments in the public entities. The five study variables above were derived from the Four Procurement Pillars developed by the OECD/DAC. The study used data within the context of public procurement performance such as audit reports by the PPRA, Controller and Auditor General's (CAG) reports, and the responses of the stakeholders within the selected and surveyed public entities.

The sampled population for this study was 100 Procurement Management Units (departments) as defined by the Public Procurement Act, 2001 (as amended in 2004 & 2011). The selected 100 departments were out of 298 public entities that were audited by the PPRA from the 2011/2012 to 2013/2014 Financial Year. The sampled (100) public entities are geographically scattered countrywide. The results of the study, therefore, shall suffice to conclude on the performance of procurement departments within Tanzanian public procurement institutional framework. In this study, the terms 'procurement departments' and 'procurement function' are synonymously used, unless otherwise stated.

1.7 Limitations of the study

The sample for this study consisted of the entities that were audited in a given period (from 2011/2012 through 2013/2014 Financial Years). Obviously, this limited the scope of the study for not investigating entities other than those in the ‘audited period’ under investigation. Consequently, some of the findings in this study may not necessarily reflect the current procurement practices in the public entities, particularly where some changes in the public procurement rules, regulations and policies have taken place. Further studies therefore, should not confine themselves to a specific period of time as it was the case in this study.

Furthermore, the study dwelt on five predictors (independent variables), namely procurement legal and regulatory framework, procurement professionalism, private sector participation, transparency and institutional integrity. Certainly, this limited the scope of the study from investigating on other factors that determine performance of the procurement departments in public entities. It is therefore, suggested that further studies be conducted in the public sectors so as to establish other factors that influence performance of the procurement function.

The main respondents for this study were mainly officials from within the surveyed public entities. The main data collection instrument was a self-reported questionnaire administered by a ‘drop and pick’ method. Hence, there was a possibility that the responses given are those which favour the entities more than the actual performance of the procurement function in their respective entities. The study therefore, proposes that future studies should involve outside respondents from the key stakeholders. Specifically, future studies should involve the entities’ suppliers, service providers and contractors who are involved in the procurement process and therefore affect and affected by the performance of the procurement function.

CHAPTER TWO

REVIEW OF LITERATURE

2.1 Introduction

The key concepts in this study are as reflected in the background information and statement of the problem. These have been defined under ‘definitions of key terms’ in the preliminary pages. Subsequently, this chapter reviews these concepts and their relationships. The review also includes describing links among the concepts as provided by relevant theories and models. Empirical studies relating to the study variables have also been reviewed as they form a basic ground of the study. As a best practice, the review is summarised in the form of a Conceptual Framework/Model. The chapter ends by highlighting the critiques and gaps emanating from the reviewed and documented literature.

2.2 Theoretical Framework

Defee *et al.*, (2010) asserts that good research should be grounded in theory. There are several theories and models that explain and describe the way public procurement operates. This study dwell on three theories namely the Institutional Theory, Principal – Agent Theory and Legitimacy Theory. These theories were adopted considering the Four Pillars Model developed by OECD, and which subsequently were used in developing the Conceptual Framework for this study.

2.2.1 Institutional Theory

This theory is one of the traditional approaches which are used to examine components of public procurement (Tukamuhabwa, 2012; Obanda, 2010). The theory adopts a sociological perspective to explain organisational structures and behaviour (Dunn & Jones, 2010). Scott (2004) suggests that there are three pillars of institutions namely

regulatory, normative and cultural cognitive. The regulatory pillar focuses on the use of rules, regulations and procedures as basis for compliance. The normative pillar on the other hand deals with norms and value with social obligation as the basis of compliance. The cultural–cognitive pillar rests on shared understanding (common beliefs, symbols shared understanding). Adopting from this theory, all public entities in Tanzania are guided by rules and regulations with the respective laws and the attendant regulations and guidelines governing the public procurement processes and activities. The theory therefore supports the first independent variable of this study ie, legal and regulatory framework.

Furthermore, the three institutional pillars as advocated by Scott (2004) identify organisational culture, social influence, organisational incentives and enforcement as the prerequisites of compliance with procurement law and regulations. The implication of this is that, in order to achieve the high level of performance in the procurement functions, institutions must first be strengthened. This is view is also supported by Hilletoft (2009) who argued that procurement process in the public sector need a body that is not only focused but also committed in attaining of the set up goals and objectives.

The strategic role of procurement can only be realised when included in the corporate strategic planning process and implementation at the same level as other functional areas. This occurs when the importance of procurement is recognised, accepted and operationalized by top management (Baily *et al.*, 2015). Top management should therefore recognise the importance procurement by explicitly involving procurement staff in the formulation of corporate strategy (Hubbard, 2009). The easiest way to accomplish this is to make the head of procurement department a member of the top management committee (PPA, 2011).

Furthermore, procurement performance can be enhanced if training for procurement staff is emphasised. The current changes in business environment calls for highly and professionally trained procurement staff in order to deal with the complexities in the supply market. According to Carr and Smeltzer (2000), for procurement to be at a strategic level, professionals need to poses a set of skills and competency. While commending the role played by Professional Bodies such as KISM in Kenya and PSPTB in Tanzania to train and develop procurement personnel, the challenge remain within the public entities to ensure that they employ professionally qualified and registered by such professional bodies. Once again, the theory supports the second independent variable of the study namely procurement professionalism.

Failure to consider staff professional qualifications and capabilities always result in poor procurement operations and thus prevent the full potential of strategic procurement being realised (Kinght *et al.*, 2007; Mrope 2008). The theory was therefore important in explaining the institutional arrangements (organisational structures) responsible for effective implementation of and compliance with the PPA 2011 and PPR 2013.

2.2.2 The Principal – Agent Theory

The principal –agent model explains the kind of relationship that subsists between the principal and his agent in which the former is always in a stronger position to persuade the latter to perform certain functions that best meet the principal's interests (Health & Norman, 2004). In this theory, the relationship between the principals such as company shareholders and agents or company executives and managers is clearly defined. According to the theory, owners of the company (shareholders) employ staff (agents) to perform some tasks on their behalf. The day to day running of the business is delegated to the managers by the principals. In this relationship, managers are actually the shareholders' agents (Clarke, 2004).

Based on the principal – agent theory, procurement managers and all public officials involved in public procurement activities must play the agent role for elected representatives. This is very true in Tanzania where the Public Procurement Act bestows the responsibility of compliance with public procurement legal framework on the Accounting Officers of the procuring entities. However, as pointed out by Langevoort (2002), compliance with procurement rules and regulations may represent a principal – agent problem.

Experience has shown that application of the agency model poses a number of challenges that make the opponents to increasingly question on its credibility. Opponents argue that there is always a difference between the directions given by the principals and the actual decisions made by agents. This divergence between the principal's decision and the agent's decisions is the main problem highlighted by the agency model. The divergence arises due to the fact that the agents also have their self-interests that they would like to maximize in the course of discharging the given responsibilities. And if the agent works for the sole benefit of the principal, he/she is demotivated and thus likely to engage in lower level of effort.

From this theory it is inferred that when someone is forced to comply, dissonance is created. Forced public procurement compliance can therefore result in cognitive dissonance (Tukamuhabwa, 2012). However, proponents of this theory argue for the need to increase public participation in the procurement process. The argument here is that increased public participation in the procurement process is likely to strengthen the scope of monitoring and enforcement of procurement decisions by public agents and shift the responsibility from the elected representatives to the taxpayers, who are the main principals.

The Principal – Agent theory was therefore relevant and useful in our study in that it assisted the researcher in explaining the relationship between the government as the principal and the procuring entities as agents in the implementation of the public

procurement legal framework. The theory shows how the actions and performance of the procuring entities (as the agent) affect the government (as the principal) and other stakeholders (Muranda, 2006). In particular, the actual implementation of the public procurement law and regulations was discussed through this theory.

2.2.3 The Legitimacy Theory

Derived from the concept of organisational legitimacy, Dowling and Pfeiffer (1975) defined legitimacy theory as a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. However, when a disparity subsists between the two value systems, there is a threat to the entity's legitimacy (Guthrie, Cuganesan & Ward, 2007). In order to obtain or maintain legitimacy, four (4) courses of actions can be taken by organisations as advocated by Lindblom (1994), namely educate and inform its relevant publics about the organisation's activities and performance; change the perception of the relevant publics; manipulate perception by deflecting attention from the issue of concern to other related issues and change external perception of its performance.

The legitimacy theory states that the organisation is responsible for disclosing its practices to the stakeholders, especially to the public and justifies its existence within the boundaries of society (Wilmshurst & Frost, 2000). This theory, which focuses on the relationship and interaction between an organisation and the society, provides a sufficient and superior lens for understanding government procurement system (Tukamuhabwa, 2012; Hui *et al.*, 2011). Witting (1999) argues that public procurement is a process within a political system, as such public officials responsible for the procurement processes and decisions are accountable to representatives of the public whose money is spent. From this theory, the perceived legitimacy of public procurement rules has been identified as one of the prerequisites of public procurement compliance behaviour. Legitimacy of public procurement on the other hand is perceived by the level

of integrity and transparency of the procurement staff and procurement process respectively (OECD, 2006; Straub *et al.*, 2010).

Borrowing from the legitimacy theory, one of the functions of the Procurement Oversight and Regulatory Bodies is to monitor and report on the performance of public procurement system of the country [PPA, 2011, sect 9(1) (b)]. Subsequently, the procurement laws require that reports on compliance audits conducted in the procuring entities be published and being open for public debate. The theory was useful in explaining the level of transparency and integrity in the procurement processes and decisions among the public entities in Tanzania.

2.3 Procurement Performance Models

Public procurement has been the focus of successive waves of management reform worldwide (Arrowsmith, 2010; Carol *et al.*, 2014). These reforms have been driven by an imperative to improve the performance and cost-effectiveness of the public service (Global Partner and Associates, 2012). These reforms however, have frequently been confronted by apparent conflict and debate between the basic qualities of public governance, such as accountability and transparency versus outcomes and performance (PPRA, 2011).

2.3.1 Compliance – Performance Reform Cycle Model

The Compliance – Performance model was developed by Thai (2009), and is one of the most useful models that describe how procurement performance can best be assessed. Thai (2009) observes that one of the obvious controversies about procurement management worldwide is lack of consensus including within reform agendas, about what public procurement entails or its strategic significance. Nevertheless, requirements for efficient procurement system with greater performance produce a managerial shift on

procurement management from accountability for compliance through rule-bound codified processes (McCue & Pitzer, 2000) toward accountability for outcomes.

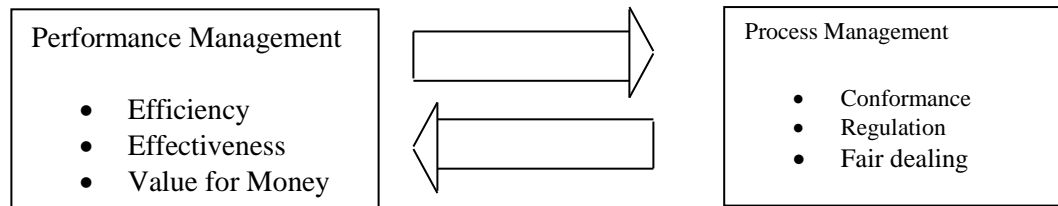


Figure 2. 1: Compliance – Performance Reform Cycle

Source: Thai 2009, p. 95

As propounded by Thai (2009) and depicted in the model above, public procurement involves two types of management - ‘process’ management and ‘performance’ management. Whereas the former focuses on ensuring “Compliance”, the latter is mainly concerned with attainment of the “Outcomes”. When institutions and governments recognise the strategic importance of public procurement, process and performance can easily be balanced and necessary skills, incentives, performance measures, organisations and management tools to deliver the full range of political and community expectations can be developed. (Schapper, 2009; Basheka, 2009)

A significant amount of literature and studies on public procurement however, indicate that procurement is mainly defined as a field and practice which is focusing more on ‘Means’ (Process) than ‘Ends’ (Performance) (Snider, 2006; Baily, 2008; Lysons 2012). While definitions and assessment of procurement in public entities in Tanzania in particular focus on the process, procedures, guidelines and compliance with the regulations, the above model advocates for the need to shift the emphasis from process to performance of the procurement function.

The Compliance – Performance Model was very important and useful in discussing the two elements of the dependent variable of the study. The dependent variable of the study

was ‘Performance of Procurement Departments’ which was measured in terms of the level of compliance with the existing procurement law and regulations in one hand, and the extent of achievement of procurement objectives on the other.

2.3.2 The Four Pillars Model

Developed by the World Bank, Development Assistance Committee (DAC) of the Organisation for Economic Cooperation and Development (OECD) and a number of developing countries, the model is used for assessing the quality and effectiveness of national public procurement systems (OECD, 2007; Agbesi, 2009; Marendi 2015).

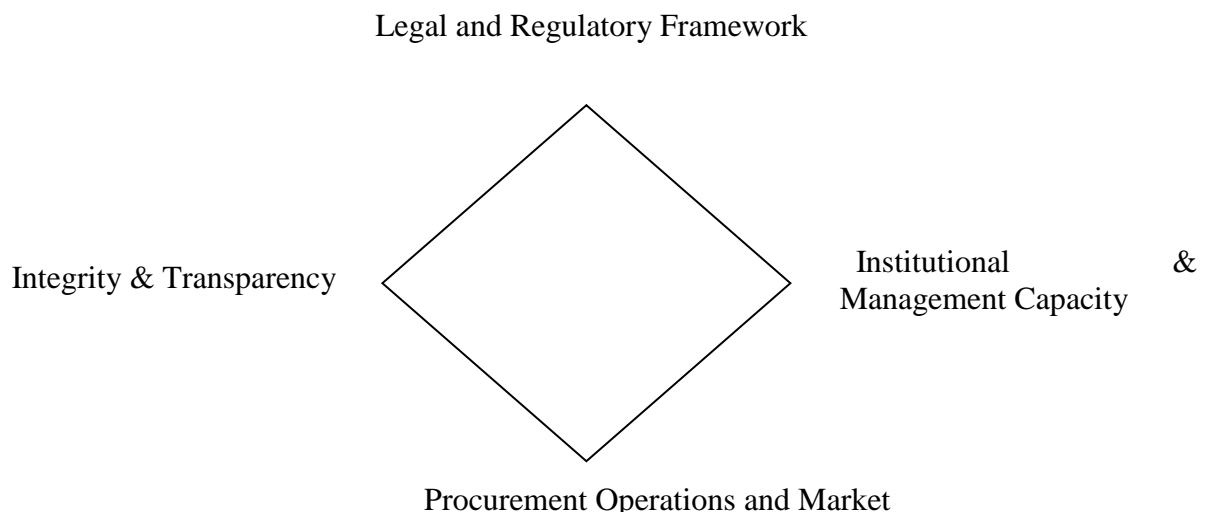


Figure 2. 2: Four Pillars Model

Source: OECD/DAC (2007)

The legislative and regulatory framework pillar is intended to assess the extent to which the existing procurement regulatory framework comply with the national and international standards with particular emphasis on availability of regulations, documentation and tools to support its implementation. It deals with quality and use of the existing procurement operational procedures, guidelines, instructions, circulars, tender documents and standard conditions of the procurement contracts. On the other hand, the Institutional Framework and Management Capacity assess the capacity of the government institutional framework in overseeing, managing and supporting the efficient implementation of the modern procurement system.

The Procurement Operations and Market Practices pillar is based on the operation of the systems at the Implementing level, i.e. at the procuring entities as well as on the procurement market. Both public and private sectors are necessary for effective performance of the public procurement. A well- functioning public procurement system therefore requires the performance a competitive private sector market (OECD, 2004). This pillar therefore intends to assess the capacity and knowledge of the potential bidders in the current supply market at all levels.

The fourth and last pillar according to the model, is Integrity and Transparency that is based on the public procurement system which relies on a number of control mechanisms, including an effective control and audit system, an efficient appeals mechanism, capacity of the complaint review system and enforcement of decisions, fairness of the complaint system measures to prevent and detect fraud in the procurement system among others. Tanzania is one of the twenty two (22) countries that participated in the pilot testing of the Methodology for Assessing Procurement Systems–MAPS (OECD, 2006). At the national level, the Tanzanian procurement system has been assessed twice using the OECD Methodology, first in the Country Procurement Assessment Review (CPAR) in 2006, and second in the pilot assessment of the country procurement system conducted by the PPRA in 2007.

The Four Pillars model was useful in explaining the Tanzanian regulatory framework and the procurement system in both at the regulatory and entity level. According to the public procurement law, the PPRA as a regulatory body is responsible for ensuring effective implementation of the legal framework and compliance with the same through enforcement by means of procurement audits. Moreover and specifically, the model was very useful in this study since all of the five independent variables were derived from the four pillars of the model.

2.4 Conceptual Framework

Colin Fisher (2010) defines a conceptual framework as a set of broad ideas and principles taken from relevant fields of inquiry and used to structure a subsequent presentation. It is formed of patterns of concepts and their interconnections. A conceptual framework, according to Chakraborty (2009), is a scheme of concepts (or variables) which the research operationalizes in order to achieve set objectives. Mugenda and Mugenda (2012) define a conceptual framework as the main structure that gives the research its form and shape and holds together all the elements in the logical configuration.

In view of the foregoing literature, in particular, the Compliance- Performance Model by Thai (2009) and the Four Pillars Model by OECD (2007), the following conceptual framework was developed to examine the effect of some variables on performance of the procurement function at the departmental level. Specifically, the study conceptualised that legal framework, procurement professionalism, private sector participation, transparency and integrity in the procurement process were the five independent variables whereas performance of procurement departments as dependent variable. Figure 2:3 below presents the conceptual framework of the study.

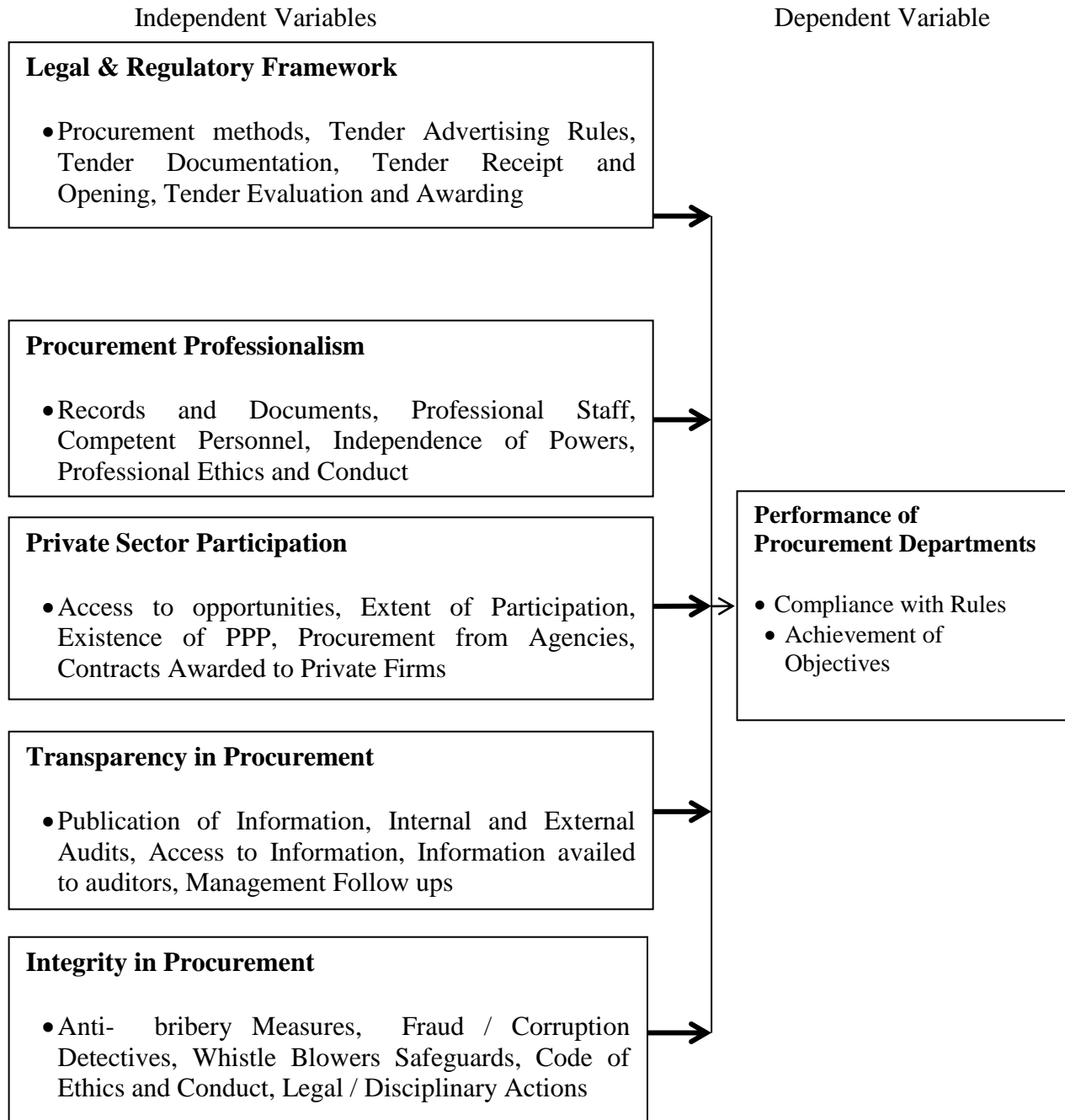


Figure 2. 3: Conceptual framework of the study

2.4. Review of Variables

In recent years, many scholars in public procurement have tried to explain on what actually influences the performance of public procurement in developing countries (Baily *et al*, 2015; Lyson & Farrington, 2012). However, for the purpose of this study, our review was based on the proposed study variables - both independent and dependent- as the depicted in the conceptual framework in Figure 2.3 above.

2.4.1. Legal and Regulatory Framework

The legal and regulatory framework refers to the entire set of legal instruments (Laws, Acts, Decrees, Circulars or Regulations) that provide further detailed procedures for implementation of an administrative nature (Zubicic & Sims, 2011). With regard to public procurement, the legal and regulatory framework sets the rules of the process and provides the legal basis for ensuring the rights of participants and establishing their responsibilities.

In Tanzania, the procurement reform programme was implemented by the enactment of the Public Procurement Act (PPA) 2001, which came into effect on 1st July 2001. The PPA is underpinned by the Public Procurement (Goods, Works, Non-Consultant Services and Disposal of Public Assets by Tender) Regulations, the Public Procurement (Selection and Employment of Consultants) Regulations, and Standard Bidding Documents issued by the oversight body, i.e. PPRA. Experience drawn from the operationalisation of the PPA 2001, prompted the need to repeal the PPA 2001 with a view to make better provisions. The PPA was thus, repealed first in 2004 and second in 2011. The current version of the legal framework comprises of the Public Procurement Act, 2011 (PPA, 2011, CAP 410) and The Public Procurement Regulations (GN 446 of 2013). The PPA and its subsequent regulations established procedures for procurement and disposal of public assets to be followed by the procuring entities. In execution of their duties, the procuring entities must strive to achieve the following objectives: to

ensure equality of opportunity to all bidders; to ensure fairness of treatment to all parties; to ensure that the best value for money is obtained in terms of price, quality and delivery (PPA, 2011; CAG, 2014; PPR, 2013).

In the two procurement assessments at the national level in 2006 and 2007, a number of weaknesses were observed in the implementation of the then procurement regulations, including but not limited to: selection of procurement methods, weaknesses in the advertisement of tenders and noncompliance of contract award procedures and criteria. The study picked the same areas and see if they still exist in the current procedures and practices.

Selections always have consequences. Selection of methods of procurement too is a critical aspect in ensuring that both procurement and disposal is conducted in a manner that maximises competition and achieve economy, efficiency, transparency and value for money (PPA, 2011; Basheka, 2009). The procuring entities are required by the law to use the procurement methods prescribed in the regulations depending on the type and value of the procurement. Regulations 148 – 161 of the Public Procurement Regulations, 2013, describe the rules applicable to the selection of procurement methods. Improper selection of a procurement method is therefore considered as noncompliance with the procedures but more seriously denies value for money procurement from being realised (Eyaa & Oluka, 2011; Rossi, 2010). Likewise, discriminatory selection of the procurement methods limits competition in the procurement process and thus making it difficult for a procuring entity to obtain fair prices, better quality and on time delivery of the goods, works and services procured (Kechibi, 2012).

Weakness in the tender advertising was observed by the CPAR (2003) in that there was no central media for advertisement of tenders or awards. In order to ensure that all bidders are given equal opportunity to participate in the procurement opportunities offered by the public entity, the PPA 2011 and regulations require the procuring entities to prepare tender notices that are in compliance with the rules stipulated in the

regulations, in particular, the contents of invitation to tender and its publication (PPA, 2011). The law requires that invitation to tender notice be published in the government newspaper and any other paper of wide circulation. Clear and consistent advertising rule encourage more participation by both public and private sectors organisations. The more participants we have in the procurement process, the maximum competition is expected with its associated advantages in prices, quality and delivery (Baily *et al.*, 2015).

Tender evaluation and awarding is the decision- making process by the procuring entity that requires the highest degree of transparency, consistency and integrity by those involved. To ensure that bidders are treated fairly, the law requires all procuring entities to evaluate and compare all tenders in accordance with the procedures and criteria prescribed in the soliciting documents (Regulation, 211). In simple terms, this is a stage in the procurement proceedings whereby a supplier is selected.

Selecting suppliers is perhaps the most important job a procurement professional has (J.Ross Publishing: <http://tinurl.com/procurementbook>). If a poor supplier is selected, an entity is likely to be burdened with poor supplier performance, supply disruptions and inefficiencies. On the other hand, if a right supplier is selected then the other procurement objectives (price, quality, delivery) can easily be achieved (Lyson & Farrington, 2012). The study therefore looked at the extent to which the procuring entities are complying with the evaluation and awarding criteria prescribed in the current regulations.

2.4.2 Procurement Professionalism

In order to ensure public accountability and value for money through procurement transactions, there is a need for professional training and education of those personnel responsible for the procurement process and management (Van Weele, 2010). Professionalism depends on the staffing, knowledge, skills and capabilities of the human resources and on controls in the system that influences human behaviour (OECD, 2007).

Lysons and Farrington (2012) asserts that procurement as a profession, is skilled based on theoretical knowledge, prolonged training and education, competence based on tests and examinations and adherence of professional code of ethics.

Thus, an effective procurement system requires that the procuring entity is staffed with procurement professionals, trained and recognised by the respective procurement professional body (Basheka, 2009). On the other hand, lack of professionalism leads to corruption which ultimately impedes compliance of procurement rules and regulations in procuring entities and adversely affects performance (Raymond, 2008).

The increasing importance of procurement suggests that only well trained and qualified personnel should be employed to manage the process. If procurement officers are not professionally trained, lack awareness about all regulations in relation to procurement and related procedures, then serious consequences including, breaches of codes of conduct occur leading to application of unsound procurement practices and therefore declined organisational performance (Atkison, 2006). Various studies indicate that performance in most public entities has been poor due to among others, inadequate and /or incompetent procurement staff (PPOA, 2007; Agbesi, 2009; PPRA 2011). As a consequence, the established procurement regulations, rules and procedures are not consistently applied. Procurement staff and all those involved in the procurement process therefore, are required to be familiar with the procurement rules and regulations.

Professionalism in public procurement does not relate to the levels of education and qualifications of the workforce only, but also to the professional approach in the conduct of business activities (Raymond, 2008). Robert and Clifford (2004) propound that a professional is characterised by having a professional organisation, a Code of Conduct and Ethics, a body of knowledge and research activities. In public procurement, much effort has been made to define the competencies required of those in the profession such through the National Institute of Purchasing (America); the Chartered Institute of Purchasing and Supply (UK); the Kenyan Institute of Supply Management (Kenya) and

the Procurement and Supplies Professional and Technicians Board (Tanzania). These are professional bodies responsible for among others, development and dissemination of codes of ethics and conduct for its professionals.

Despite this effort, procurement in the public entities is still characterised by incompetence, malpractice and corruption (Global Partner Associates, 2012; Corruption Survey, 2009). Specific elements of professionalism that the study looked at include the manner in which procurement and contract records are maintained in the entities, the academic and professional qualifications of the procurement staff – as the basis of competence-, and the existence and level of adherence to the professional (procurement) Code of Ethics and Conduct.

2.4.3 Private Sector Participation

Public procurement requires performance of both the public sector as well as the private sector. The private sector is growing and becoming an engine of economic development in all – developed and developing countries (Thai, 2009). A competitive private sector market is therefore a key partner to the well-functioning public procurement system. To be able to participate effectively however, the private sector must have confidence in the competence of the contracting authorities at all levels within the public procurement system in place. The more private sector firms participate in the procurement process, the wider competition is encouraged, and the better price, quality and timely delivery are anticipated.

Due to increased demand for public services, governments in many countries have made concerted efforts to reduce their direct expenditures. Public –Private Partnerships (PPPs) are one of emerging method of doing so (Ongolo, 2006). The PPP is a contractual arrangement between the public sector entities and private sector firms for the purposes of delivering a project work or service. The private sector firm performs a public function on behalf of the public/ government according to output specifications.

The PPP involves the transfer of various forms of project cycle risks from public to private sector (Aidan *et al.*, 2001). Examples of PPPs in Tanzania include the recently inaugurated Kigamboni (Nyerere) Bridge, University of Dodoma Housing project, Dar Rapid Transport project. In Kenya it is estimated that 70% of flagship projects envisioned in the Kenyan Vision 2030 are expected to be delivered through public private partnerships. They include Port projects (Mombasa port, Lamu transport corridor); Railway Transport (concession of Kenya – Uganda railway, Standard railway gauge from Mombasa to Uganda border and Southern Sudan) and Konza ICT city (KISM, 2011; Mutero, 2013). Regulations 369 – 379 of the Public Procurement Regulations 2013, describe the procedures for conducting procurement under public – private partnership in Tanzania.

Despite their desirability and increased use worldwide, few independent researchers have been conducted on the effectiveness of PPPs. Evidence from six project case studies and an analysis of U.S. prison public- private partnership conducted by Aidan *et al.* (2004) suggests that the private sector often attempts to gain as much as it can at the expense of the public sector. An assessment conducted in Kenya, identified lack of procurement knowledge among private sector players as one of the main challenge facing the procurement system in the country (OECD, 2007). Consequently, this has limited the degree of private sector participation in the procurement process and thus limiting competition (PPOA, 2007). Late payment to suppliers, contractors and service providers has been reported as one of the main reason discouraging and thus limiting the private sector firms from participating in the procurement opportunities offered by the public entities in Tanzania (Mkalimoto, 2011; Kechibi, 2012).

This study intended to establish the extent to which the private sector organisations participate in the public procurement opportunities focusing on accessibility to the opportunities, the existing PPPs arrangements (if any), proportion of contracts awarded to the private firms as percentage of the total number of contracts and the existing buyer – supplier relationships.

2.4.4 Transparency in the procurement process

From the public procurement point of view, transparency refers to the extent to which procurement stakeholders can access the information about the entire process by which procurement made by the procuring entity is conducted, contract awarded and managed by the respective entity (Sudhir, 2004). From this definition it is therefore true to say transparency in public procurement is about accessibility to information. Accessibility to procurement information by the stakeholders and the manner in which such information is used by the interested parties directly affects accountability in the public procurement system (UNDP, 2010). In public procurement, transparency means procurement rules are publicized as the basis for procurement decisions prior to their actual, and more importantly the same rules apply to all bidders.

In essence, transparency encourages open competition, discourages corrupt dealings and other malpractices which impede accountability (Global Partners Associates, 2012). The study considered publication of information, existence of procurement audits – internal and external – and management follow ups and actions as the basic elements and evidence of transparency in the procurement process.

Since transparency in the public procurement is about information, then it can fairly be argued that procuring entities must avail to its key stakeholders all information relating to process, decision and management of procurement contracts. The best way to do this is through publication of the said information in the media as required by Reg. 10 (1- 2) of the Public Procurement Regulations, 2013. Publication of information is vital as it creates confidence to the citizens who are the tax payers and who would like to know how their money is spent (OECD, 2007). It is through publication of information relating to its activities that the entity actually interacts with the society in which it operates. (Tukamuhabwa, 2012; Hui *et al.*, 2011).

Procurement audit is as an independent review and systematic examination of the procurement and disposal records with a view to verifying whether procurement and contracting processes are followed and to recommend measures to address any compliance gaps identified and hence improve compliance (Moti, 2015). The oversight body plays an enforcement role to ensure that procurement activities of the procuring entities are periodically reviewed and monitored as outlined under section 9 (I) (i- iii) of the Tanzanian Public Procurement Act (PPA) No. 9 of 2011. Previous studies however, indicate that there is general lack of transparency in the procurement process in several procuring entities and that implementation of the procurement laws and regulations is being hindered by poor information dissemination (Chene, 2009). Moreover, inefficiencies in the appeal and enforcement mechanisms, inadequate advertising opportunities and lack of clear selection criteria have been cited in the country procurement assessments conducted in Indonesia, (2007); Afghanistan, (2005); Mongolia, (2007); Uganda, (2007) and Tanzania, (2007). All these suggest that several factors affecting the performance of procurement in the public entities are related to lack of transparency in the procurement process.

2.4.5 Integrity in the procurement process

Integrity comes from the Greek words ‘integritas’ and ‘integra’ meaning *whole*. It enters into any aspect of one’s life and it includes: sincerity, honesty, truthfulness, ethics, fairness and justice. The online dictionary defines ‘honesty’ as the synonym of ‘integrity’ and describes it as the state of being free from deceit, trustful and sincere. Soanes *et al.*, (2006) defines ‘integrity’ as the quality of having strong moral principles. Integrity in public procurement means public resources linked to public procurement are used in accordance with the intended purposes (OECD, 2007). Hence, maintaining integrity in public procurement is one of the most important pillars of modern procurement systems (Arrowsmith, 2010).

Integrity is at the core of ethical behaviour (OECD, 2007). Maintaining a high level of institutional integrity is therefore necessary to prevent fraud, corruption and other unethical practices as procurement and supply chain functions are vulnerable to unethical behaviour which not only increases costs but also damage the reputation of the entity (Namusonge, 2011). According to Soudry (2007), the integrity of procurement officials is not only important from a public perspective, but also has three economic implications. Firstly, on the procuring side, a lack of integrity may lead to additional costs: secondly, on the business community side, in the absence of integrity, potential bidders are less encouraged to value and participate in government business. And thirdly, on the side of the society, which is affected by the actions of both the government and the business community. The public interest therefore requires that government business is done in a manner guaranteeing that expenditures are made in the most economically rational way.

Contrary to the foregoing, integrity is one of the major challenges in managing public procurement across the world. According to National Governance and Corruption Survey (2009), public procurement and contracting sectors are prone to grand corruption. The tendering process is 'rarely' or 'never' fair and that on average procurement contracts involve unofficial payments of around 10% of contract value. Other studies reveal that public procurement is characterised by malpractices such as over invoicing, inadequate documentations, mismanagement of construction projects and that favouritism in public procurement may occur even in a non-corrupt society (Hytinen *et al.*,2006).

As observed by Kalubanga M *et al.* (2013), increased spending on government contracts justifies the opportunity for procurement fraud, and if no arrested fraud can significantly impact on procurement performance. Relevant to this variable, the study specifically looked at the existence and application of anti- corruption measures, Code of ethics and conduct, and evidence of enforcement of rulings and penalties with regard to unethical procurement practices in the entities.

2.4.6 Performance of the Procurement Department

Section 37 of the Tanzanian Public Procurement Act (2011) requires that in every entity there shall be established a Procurement Management Unit (PMU). The establishing law further defines the PMU as a division or department in public entity responsible for the execution of the procurement functions. According to section 38 of the said law, one of the functions of the PMU is to manage all procurement and disposal by tender activities of the entity.

According to Sabine (2004), procurement performance is defined by how “well” its process is conducted and how “good” the outcome is. A good process always leads to a good outcome. The implication of this definition is that an assessment of performance of a procurement function must consider the two components namely its process and objectives. And this is what our study has adopted whereby performance of procurement departments in the public entities were measured in terms of compliance with the procurement law (process) and achievement of the procurement objectives (outcomes). The overriding objective of a Tanzanian’s public procurement system is to deliver efficiency and value for money in the use of public funds, whilst adhering to procurement law and regulation [PPR, 2013, reg. 4(1) and (2)].

From the public procurement point of view, performance measurement is about seeking to answer the fundamental question of whether the procurement process and decisions ultimately deliver in accordance with the procurement objectives set (.Mlinga (2007). Prominent authors in the area of Procurement Principles and Management, Baily, Farmer, Jessop and Jones (2015) assert that the Key Variables for any procurement are Right Quality, Right Quantity, Right Time, Right Source and Right Price/Cost. It is on the basis of these variables that the procurement objectives of any entity are derived.

Emanating from the above discussion, in this study, performance of the procurement department was assessed by focusing on two components: the procurement process and procurement outcomes. In attempting to answer the question on how well the procurement process was conducted, the study determined the level of compliance with the existing procurement law and regulations. That was simply obtained from the compliance audit reports by the oversight body. Interviews with key participants in the procurement process also confirmed the score (performance) of the entity. A score below 50% was considered as non-compliance and hence inefficiency.

Reports of the Controller and Auditor General on performance of the entity's procurement function served the same purpose as well. Clean report suggested efficiency whereas unqualified reports indicated inefficiency. Nevertheless, studies by Woolf (2002); Namusonge (2007); and Manasseh, (2007) have concurrence that compliance audit is considered effective if it attains the intended results of nurturing good governance and effective accountability in the management of public resources on timely and with minimal costs.

The procurement outcomes was determined by the extent to which the department has actually managed to achieve the key procurement objectives of making available the required goods, works and services of the right Quality, at the right Time and at the right Price/Cost. The procurement department is required by the procurement law to plan the entity's procurement. Non adherence to the procurement plan is most likely to result in non-availability, partial or untimely delivery of the required supplies with its associated consequences. As advocated by Kakwezi and Nyeko (2010), only when the procurement function is planned, that it is easy to measure its performance. The actual procurement made as a proportion of the annual procurement plan was obtained through the audit reports, the CAG reports and supplemented by face to face interviews with purposefully selected participants in the respective entity's procurement process.

2.5 Empirical Review

Various studies have been conducted on what actually influences the performance of public procurement and well documented (Gesuka & Namusonge, 2013; Kioko & Were, 2014; Eyitope *et al.*, 2014; Ngeno, Namusonge & Nteere, 2014; Marendi, 2015 Wahu, Namusonge, Mungai & Chilioni, 2015). However, for the purpose of this study, the review of empirical literature was done in line with the specific research questions and the hypothesized variables. Our review focuses on the methodologies adopted, variables used to assess the performance, major findings, recommendations made and implications or validity of the respective studies. As suggested by Mugenda (2008), such detailed knowledge of what has been done by other researchers has helped us to avoid unnecessary and unintentional duplication, and more importantly helped us to form a framework within which our findings were interpreted.

Adams *et al.* (2014) conducted a study on sustainability performance in the public sector. The main objective was to identify current performance measurement practice in the public sector organisations in Australia. A mail-out questionnaire survey approach was adopted which included 5 - point Likert scale questions relating to performance. The key results of the study indicated that to a great extent performance measurements utilised in the government departments were in the areas of Output (quantity) measures, Cost efficiency and Quality measures. Mady *et al.* (2014) investigated on manufacturer – supplier relationship and procurement performance of two manufacturing sectors in Kuwait. Four dimensions were used to assess the perception of plant managers towards the procurement performance of their plant. These were on –time delivery, right order quantity, best price and right quality. An ordinal 5- point Likert scale questionnaire survey was the data collection method used in the study. The findings indicate that there is a significant effect of supplier relationship and selection on a plant’s procurement performance.

In a study by Ngeno, Namusonge and Nteere (2014) on the effect of discriminatory public procurement practices on organisational performance of public sector in Kenya, study interviewed 139 procurement managers and concluded that reservations, preferences and indirect practices positively influenced organisational performance of state corporations. Study recommended making sub-contracting to Kenyan firms obligatory, downsizing contracts to volumes that local business can manage, reducing bureaucratic barriers and providing better feedback to local providers and bidders

Kakwezi and Nyeko (2010) assessed the financial and non-financial measures on performance of the procurement function in Uganda focusing on efficiency and effectiveness. The study adopted Likert Four Point rating scale in analysing the responses. The study found that both financial and non-financial measures are equally important in indicating the performance of the procurement function in the public sector. Furthermore, the study indicated that quality of goods and services delivered is the most important set targets of the procurement function of the non- financial measures. On the financial measures, the study indicated that procurement audit and budgetary controls is the most important measure of procurement performance.

Kiage (2013) carried out a study on factors affecting procurement performance in Kenyan public entities. The study was conducted at the Ministry of Energy Workforce through a descriptive design using a cross sectional survey. A dependent variable of the study was procurement performance measured in terms of efficiency and effectiveness. Results from the study indicate that of all the independent variables, procurement planning had a significant impact on procurement performance. However, the study concluded that procurement planning, resource allocation, staff competency and contract management positively affected procurement performance at the Ministry. The study recommended that preparation of annual procurement plans should be participatory and that, management of the procurement process should administered by qualifies, competent and experienced procurement professionals. Kioko and Were (2014) assessed the factors affecting the public procurement function at the public institutions

in Kenya. The study adopted descriptive research design with semi structured questionnaires as the key data collection instrument. The study found that procurement staff competencies, legal framework, institutional culture and information communication technology (ICT) had a positive effect on the efficiency of the procurement function in public entities in Kenya

Amayi and Ngugi (2013) conducted a study on determinants of public procurement performance in Kenya: a case of Ministry of Environment, Water and Natural Resources. The study adopted a descriptive research design with case study approach in which 85 questionnaires were issued to respondents. Both descriptive and inferential statistics were used to analyse the data collected. Interestingly the study found that all of the five variables ; Legal framework, Management support, Professional ethics, Information and Communication Technology (ICT) and Government policies are strongly correlated with procurement performance of public institutions in Kenya. It was recommended that given the economic importance of public procurement, the government should establish a full- fledged ministry to take charge of procurement matters instead of placing it under the National Treasury.

Gesuka and Namusonge (2013) conducted a study on the factors affecting compliance of public procurement regulations in Kenya with 70 respondents that were purposively selected from the Butere district commissioner's office, procurement committees, procurement unit, user departments and suppliers. Primary and secondary data were collected through the administration of a structured questionnaire, interviews and records analysis respectively. The findings indicated that public entities lack professional knowledge on procurement regulations, ethics, integrity and accountability. The study recommended that the government through the PPOA should ensure that the procurement function in public institutions is managed by professionally trained and qualified personnel with high level of integrity.

Wahu, Namusonge, Mungai and Chilion (2015) investigated factors affecting performance of the procurement function in public secondary schools in Kenya. The study found that competitive bidding greatly influence the procurement performance in public secondary schools. However, the study further established that respondents demonstrated poor understanding of competitive bidding, legal framework and aggregation of procurement. The study recommended that training on public procurement regulations and procedures be conducted for secondary school teachers. Specifically the study recommended for inclusion of procurement courses into teacher training curricula at degree, diploma and certificate levels.

An assessment of non-compliance with procurement proceedings in procurement of works in Nigeria was conducted by Eyitope *et al.* (2014). A survey method was adopted which involved the use of questionnaire administered to stratified and random. The key results of the study indicated that institutional and political reasons are the major reasons for non-compliance with the procurement proceedings in procurement of works in Nigeria. The study concluded by recommending strengthening transparency and objective competitive bidding process, and establishment of a structure that will exclude political influences in managing the procurement processes. A similar study on the causes of non-compliance with public procurement regulations in the Ugandan public entities was conducted by Eyaa and Oluka (2011). A Four (4) point Liker scale was used to analyse data obtained from 46 out of 120 central government procuring and disposing entities. The study found that familiarity with procurement regulations is a significant predictor of compliance with procurement regulations in the central government entities in Uganda. The managerial implication of the findings is that for compliance with public procurement regulations to be improved, focus need to be placed on improving familiarity with the procurement procedures amongst procurement staff and other personnel involved in the procurement process.

Shiundu and Rotich (2014) conducted a study on the factors influencing efficiency of procurement systems at the City Council of Nairobi focusing on procurement employees. Descriptive survey was adopted and since the population was not very large, a census approach was adopted of all 63 procurement officers and data was collected using a questionnaire. Findings indicated that employee competence, information technology, records management and management style influenced procurement efficiency at the council. Study recommended, among other things, enhancing procurement staff skills; adoption of e-procurement system and maintaining a good record keeping culture to ensure comprehensive statistics on the value of goods, services and works procured. Ibrahim and Hamid (2012) carried out a study on supply chain management practices and supply chain performance effectiveness in manufacturing companies in Sudan. Data were collected through questionnaires distributed to supply chain managers and top-level executives in 150 large manufacturing corporations in Sudan. The study found that Integration, information sharing, customer management and speed of responsiveness were the supply chain management practices that were adopted in the study. The study revealed that there is a positive relationship between supply chain management practices and performance through effectiveness.

Based on a survey among 147 responding purchasing professionals of the Dutch Ministry of Defense, Gelderman *et al.* (2006) conducted a study on public procurement and EU tendering directives—explaining non-compliance. The findings indicated that purchaser's familiarity with the rules and organisational incentives had a statistically significant impact on compliance. A managerial implication of their study is that educating and training public procurement staff will be an effective tool for increasing the compliance with the directives. Guccio *et al.* (2014) conducted a study on analysis of time performance in the execution of public works in Italy. The analysis was based on data drawn from a large sample of 9622 Italian public works. Two independent variables were employed: Differences between contractual time and completion time, and Ratio between the contractual time and the expected duration of the project. The study found

that the local governments seem to be less efficient in management of the execution process as they suffer from longer delays than the central government. One policy implication that arises from the empirical evidence of organisational inefficiency is to move to centralised forms of management of public works that are able to exploit economies of scale and employ adequate bureaucratic and managerial competencies.

Okanda, Namusonge and Waiganjo (2016) investigated the influence of supply planning practice on the performance of the unit of vaccines and immunisations in the Ministry of health, Kenya and found out that supply planning practices such as optimum inventory procurement, determination of health requirements of health facilities at every node, aggregate determination requirements and joint coordination with suppliers if adopted by the unit of vaccines and immunisations will increase the performance positively.

PPRA (2007) conducted the survey on the quality of the Tanzanian procurement system. The objective was to test effectiveness and efficiency of the MAPS version 4 of 2006 used by development partners in assessing the effectiveness of national procurement systems in developing countries. Twenty (20) public entities randomly selected were involved in the assessment. A total of 498 questionnaires were distributed to the sample procuring entities selected. Five (5) civil society organisations and twenty (20) stakeholders (contractors, suppliers, service providers and consultants) were interviewed. Results of the assessment based on the achieved scores indicate that there is an improvement in performance of the country's public procurement system compared to the previous (2006) assessment. Specifically the assessment revealed that the public procurement has performed well in Legislative and Regulatory Framework; whereas deficiencies in other pillars are evident. The assessors recommended that the observed deficiencies should be addressed so that improvement in other pillars can be achieved as well.

A study on cost control in public procurement in Tanzania was conducted by the Controller and General Auditor (CAG) in 2014. The study focused on procurement of air ticketing from four (4) selected ministries and on construction from Seven (7) selected LGAs projects. Several techniques were used to obtain the required data namely interviews, documentary reviews, focus group discussions and site visits and inspections. The study found that public procurement is generally characterised by unrealistic plans, unrealistic budgets and unrealistic cost estimates. From the findings, it was concluded that despite the existence of a provision in the procurement law on safeguarding of public resources against unnecessary overspending, the key stakeholders in public procurement have not addressed key issues related to cost control. The study recommended among others, that the Public Procurement Policy Division (PPPD) should revise some of the government circulars which provide guidance for public procurement activities with a view to minimise unnecessary costs.

2.6 Critique of Reviewed Literature

A significant amount of the reviewed literature indicate that, performance of public procurement has been and still is, conducted by assessing the process with a view to determine the level of compliance against the set rules and procedures. The reviewed empirical studies conducted in Europe, Asia, America, Africa and Tanzania in one hand, and the components of effective procurement system developed by the ADB (Thai, 2009) and the Four Pillars Model by the OECD- DAC/ WB (2007) on the other hand, both support this view. With this theoretical and empirical knowledge in mind, obviously a paradigm shift from compliance to performance and from process to outcome is needed. And that is exactly what this study intended to demonstrate.

The reviewed OECD/DAC Baseline Indicators examine and compare the components of a country's public procurement system against the defined elements of the tool. Since each country operates in a unique environment, disparities should always be noted. Moreover, the indicators alone cannot give a full picture of a procurement system that is

complex by its nature. Furthermore, as several indicators are not amenable to hard measurement in terms of facts and figures, then assessing their performance is better accomplished through surveys or interviews with key players in the procurement system under investigation and preferably at the departmental/ functional level.

Empirical studies on performance of public procurement have been conducted and well documented worldwide. A substantial number of such studies however focused on compliance with the existing law, regulations and procedures. Studies by Gelderman *et al.* (2006); Agbesi (2009); Ntayi (2009); Eyaa and Oluka (2011); Mwangi and Kairuki (2013); Gesuka and Namusonge (2013); Mugo (2013) and Eyitope *et al.* (2014) are examples of studies that focused on regulatory compliance.

Various studies have been conducted to assess factors affecting public procurement performance and the level of compliance with the existing procurement legislation in Tanzania. Kiduko (2005) and Mungure (2007) studied on factors that contribute to inefficient public procurement in Tanzania; Kapilima (2007) and Mwandiga (2010) assessed the performance of Public Procurement Act 2004; Nyongera (2007) assessed the factors that contribute to non- compliance with the PPA 2004; Wasokye (2010) assessed the main causes for scams in the public procurement process; Garigo (2011) assessed the implementation and compliance with the public procurement law and regulations; Mkalimoto (2011) studied on factors affecting efficiency of the public procurement system in Tanzania; Kechibi (2012) investigated on factors affecting public procurement performance in local government authorities and Juma (2012) assessed on factors affecting procurement performance in public entities.

Many of the previous studies on performance of procurement function in the public entities have, to a large extent, concentrated on the *process* with little emphasis on *objectives*. All studies have failed to explain for example, the effect of compliance with the regulations and procedures in the performance of the procurement department in terms of timely availability of quality goods, works and services at the right cost. Hence

attainment of the procurement objectives, i.e., on time delivery, high quality and reasonable prices/ cost of the procured items, in most cases is neglected. Furthermore, none of the studies has established the relationships among the factors influencing the performance of procurement in the public entities. No specific related study on the effect of procurement professionalism, private sector participation, transparency and integrity has been conducted in determining the performance of the procurement function defined in terms of *time*, *quality* and *cost* of the procured goods, works and services. The reviewed empirical studies tend to generalise procurement performance by assessing it in terms of *efficiency*, *effectiveness* and *value for money* of the procurement function, but at the same time have failed to clearly define these terms.

2.7 Research Gaps

Evidences from the reviewed empirical literature show that most of the studies conducted on performance of the public procurement focused on compliance with the existing legal and regulatory procedures. Despite this, there is no specific study that has demonstrated the effect of legal and regulatory framework on performance of the procurement function. Studies by Ntayi (2009); Eyaa and Oluka (2011); Gaigo (2011); Mwangi and Kairuki (2013); Gesuka and Namusonge (2013); Mugo (2013); Onyinkwa (2013) and Eyitope *et al.* (2014) studied on factors influencing compliance with the procurement law and regulations, but did not explain the effect of the same on performance of the procurement function or department. For example, a study by Gesuka and Namusonge (2013) on factors affecting compliance in public procurement regulations in Kenya found that complying with the procurement law and regulations is far from being satisfactory, most of procurement proceedings in the procuring entities don't comply with the legal framework requirements fully. Nevertheless, the study did not demonstrate the effect of such non- compliance on performance of the procurement function in terms of its ability to achieve the departmental objectives.

Eyitope *et al.* (2014) investigated reasons for non-compliance in the procurement proceedings of procurement of works in Nigeria. They found that institutional and political reasons are the major reasons for non-compliance with procurement proceedings in procurement of works in Nigeria. However, the study failed to explain how such institutional and political interferences affect the performance of the procurement function in terms of quality, cost and on time completion of the works projects in Nigeria.

Various country procurement assessment reports (CPAR -Kenya, 2007; CPAR -Tanzania, 2007), indicate that the OECD-DAC methodology for assessing the country procurement system (MAPS) has been applied differently by pilot countries depending on the country situation – and thus producing heterogeneous results. In all of the assessments using the Four Pillars Model, the magnitude of effect on performance of the national procurement system is not the same, that is, there is no consensus on which pillar among the baseline indicators greatly influences the performance of public procurement at the national level.

Studies by Juma (2012); Kechibi (2012); Kiage (2013); Amayi and Ngugi (2013); Kioko and Were (2014); by Guccio *et al.* (2014) investigated on factors influencing performance of the procurement function in public organisations. In these studies and others, there was no specific independent variable addressing on the effect of Private Sector Participation or the effect of Integrity in the performance of public procurement was discussed. A study by Wahu, Namusonge, Mungai and Chiloni (2015) determined factors affecting performance of the procurement function in Kenyan public secondary schools: a case of Gatundu District. The performance of the procurement function was measured in terms of efficiency and effectiveness. Of the three independent variables under consideration, ‘competitive bidding’ was found to affect procurement performance of the procurement function to the greatest extent. However, the study did not explain how the ‘competitive bidding’ contributes to efficiency and effectiveness of the procurement function in terms of on time delivery, right quality and price/cost of the

procured items. Moreover, the concepts ‘efficiency’ and ‘effectiveness’ were not clearly defined and linked in the context of public procurement. More specifically, there is no known study on public procurement that measured performance (as a dependent variable) in terms of its *process* (compliance) and *outcome* (objectives). It is this study that bridges that existing gap.

The reviewed literature envisaged above obviously has left a research gap that must be filled. The main gap that exists is two-fold, first how performance of the procurement function can best be assessed, whether in terms of *compliance* with rules and regulations or *achievement* of its departmental objectives, and secondly, is the relationship as proposed in the conceptual framework, it is not known as to what is the contribution of each of the proposed independent variables on the performance of the procurement departments. Previous and reviewed studies have not come to the consensus on the effect of the proposed independent variables on performance of procurement departments measured in terms of both *Compliance* with the rules and regulations and *Achievement* of the procurement objectives. This study therefore intended to fill the observed gaps that shall suffice to answer the research questions in an attempt to assess the contribution of procurement function in attainment of institutional and national goals such as the Tanzanian Vision 2025, the Kenyan Vision 2030 just to mention a few.

2.8 Summary

The central focus of this study was on factors that determine performance of the procurement function in public entities. As required by the best practice and indeed in academic research, related literatures were reviewed to shade light on theoretical and empirical evidences of the study topic under investigation. Specifically, the topic drew attention on what literature to be considered; what content and context of theories and models to be considered and what empirical evidences are needed for justification of the research framework (conceptual model) under consideration.

The study was grounded by three theories and two models. The theories adopted were Institutional Theory, Principal – Agent Theory and Legitimacy Theory whereas the two models were the Compliance – Performance Model and the Four Pillars Model. These theories and models are of great value as they provide a framework upon which those involved in the procurement process and decisions can rely on and later being accountable for their actions.

From the theories, models and empirical evidences the conceptual framework consisting of independent and dependent variables was developed. Five independent variables, namely Legal and Regulatory framework, Procurement Professionalism, Private Sector Participation, Transparency in the procurement process and Integrity in the procurement process were discussed. The dependent variable discussed in the study was Performance of Procurement Department assessed in terms of level of Compliance with the procurement law and regulations and Achievement of the procurement objectives (that is, timeliness, quality and cost).

From the reviewed theoretical and empirical literature, it is evident that a number of studies on public procurement have been conducted both in developed as well as in developing countries. Most of the studies however, concentrated on legal and regulatory compliance and little on attainment of the procurement performance. Even those which focused on performance failed to explain the relationship among the variables so as to show the share of each independent variable on procurement performance. The reviewed theories, practices and evidences from Tanzania, East Africa and beyond therefore, provided the rationale for the research hypotheses that were tested to show the interface of the variables in responding to the research questions. However, further researches on public procurement are necessary in order to explain on what actually influence performance of procurement in the public sector and how best can the same be assessed.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the methodology and techniques underlying the execution of this particular study. Specifically, it consists of research design, target population, sampling frame, determination of sample size and sampling techniques; data collection procedures and pilot testing. Furthermore, the chapter describes how the collected data were processed and analysed. Finally, the statistical model applied in analysing and testing the research hypotheses have also been described in this chapter.

3.2 Research Design

A research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 2004). According to Ghauri and Gronhaug (2005), the research design provides a plan or a framework for data collection and its analysis, and reveals the type of research and the priorities of the researcher. In general terms, the research design is considered as a program to guide the research in the collection, analysis and interpretation of observed facts.

This study adopted a Mixed Research design – Qualitative and Quantitative Research Designs. In collecting quantitative data, the survey method was employed by the use of structured questionnaires. The choice of this approach was twofold; first it is capable of yielding quantitative information that can be summarised through statistical analyses and secondly, the survey method is an effective tool for getting cause- and- effect relationships and hence is the most frequently used in almost all disciplines (Ghauri & Gronhaug, 2005; Fisher, 2010).

Therefore, the researcher deemed a survey method a convenient design in accommodating the variability associated with the diverse nature of the respondents and the procurement activities they are engaged in. For qualitative data, the interview guide was used to collect in-depth information that supplemented data obtained from the questionnaires. This in-depth information provided the researcher with detailed insight on what actually determines the performance of procurement departments in public entities in Tanzania.

3.3 Research Philosophy

The study adopted the positivist philosophical orientation. Positivism is directly associated with the idea of objectivism. According to Cooper and Schindle, 2006, in positivist philosophical approach, scientists give their viewpoint to evaluate social world with the help of objectivity in place of subjectivity. Hence, researchers are interested to collect general information and data from a large social sample instead of focusing details of research. In this study the positivist philosophy was adopted due its relevance and advantage.

O'Leary (2004) advocates that the Positivists aim to test a theory or describe an experience through observation and measurement in order to predict and control forces that surround us. The positivism philosophy helps a researcher collect all facts and figures that are related with the research issue through general sources (Saunders, 2003).

The positivists view involves: the observation of real world facts or phenomena, the formulation of explanations for phenomena using inductive processes, the generation of predictions about real world phenomena using previously formulated

explanations and deductive processes and the attempted verification of these predictions through systematic, controlled experimentation or observation. Many philosophers thus believe that positivism is the foundation and rationale for most management research (Johnson & Duberley, 2000).

This study adopted the positivist philosophy based on the fact that in order to empirically establish relationship between the variables, hypotheses were formulated and tested and findings generalized. The study was guided by objectivity and was not able to influence the results of the study.

3.4 Target Population

The study of any phenomena must take into consideration the populations within which such phenomena occur (Mugenda, 2008). The population of the study generally consists of set of individuals, objects, cases, organisations, or events having certain traits, characteristics or attributes of interest to study. Since this research was carried out in response to procurement problems facing the public sector organisations, then the study identified all procuring entities in Tanzania(as defined by the PPA 2004 and as amended in 2011) to be the target population.

According to PPRA (2015), there are 470 procuring entities in total classified in six categories as follows: - Ministries (27), Parastatals (130), Agencies (82), Independent Departments (40), Regional Administrative Secretariats (25) and Local Government Authorities (166). These are public entities located country wide and which spend a huge amount of the government money through the procurement process. Moreover, procurement activities in these entities are regularly audited by the oversight body (PPRA) and in most cases, the audit reports indicate non- compliance with the existing law and regulations. It is from this population the researcher felt that the findings can reasonably be generalised.

3.5 Sampling Frame

Sampling frame also known as source list or sampled population, refers to a list of ultimate sampling entities; it is a physical representation of the target population and comprises all the units that are potential members of the sample (Mugenda, 2008; Kothari, 2011). In this study our sampling frame was a list of all procurement entities that were audited by PPRA in the recent three years, that is, the 2011/2012 FY, the 2012/13 FY and the 2013/2014 FY. Choice of the sampling frame was based on the fact that at the entity level, reports on procurement audits, which are essentially on compliance serve as a measurement of performance of the procurement function in respective procuring entities.

Reports on procurement audits are published by the PPRA in its weekly *Procurement Journal* and also available on the authority's website (www.ppra.org.tz). The auditing is supposed to be conducted in all procuring entities on annually basis. However, due to financial and administrative constraints, an average of 95 procuring entities is audited every year. For the purpose of this study, our sampling frame consisted of 298 procuring entities that were covered (audited) in the three years under consideration, that is., from 2011/2012 FY through 2013/2014 FY. The chosen sampling frame of 298 entities was taken from the PPRA Annual Performance Evaluation Report for the 2013/14 FY.

Based on the chosen sampling frame of 298 entities, the proportional allocation for each category was computed taking 0.634 (298/470) as a factor. Thus the sampled population in each category was as follows; - Ministries (17), Parastatals (82), Agencies (53), Independent Depts (25), Regional Administrative Secretariat (16) and Local Government Authorities (105).

3.6 Sample size and Sampling Techniques

Given the type of the research design, number of variables in the study, size of the sampled population and using a general rule as advocated by Kothari (2011) the researcher considered that one third (33.3%) of the accessible population would be reasonable and optimum for this study. Gay (1983) as quoted in Mugenda and Mugenda (2003) suggests that for correlational research, 30% or more is large enough to represent the salient features of the sampled population and hence the target population. Thus, 33.3% of the sampled population of 298 entities (0.333×298) was calculated to obtain the sample size of 100 entities.

The study used a stratified random sampling. This is because of its relevance as it involves different sampling stages and within which another sampling techniques can be applied. As mentioned earlier, public entities are classified into six different categories;- Ministries, Parastatals, Agencies, Independent depts., Regional administrative Secretariat and Local Government Authorities. These are public bodies established and mandated by government to carry out public functions. Despite their differences in establishment, size core functions, procurement activities and processes in these entities are governed and regulated by the same procurement law and regulations.

According to Trochom (2000), stratified sampling divides a heterogeneous population into a number of distinct categories or strata of independent sub population from which individual elements can be randomly selected. Each category of the public entities was properly represented so that the sample size drawn from each stratum was proportionate to the stratum share of the total population to ensure heterogeneity. The approach was relevant to this research due to its statistical efficiency and convenience (Zikmund, 2010). Using proportional allocation the proportion of the size for each category was determined and obtained as indicated in Table 3.1 below.

Table 3. 1: Sample Size Determination

Category of the Entity	Count	Formula	Sample Size	Percentage
Ministries	17	100/298 (17)	6	6.0
Parastatals	82	100/298 (82)	28	28.0
Government Agencies	53	100/298 (53)	18	18.0
Independent Departments	25	100/298 (25)	8	8.0
RAS	16	100/298 (16)	5	5.0
Local Gvt Authorities	105	100/298 (105)	35	35.0
TOTAL	298		100	100

In order to ensure that each category has an equal probability of being chosen, a table of random numbers was used. Table of random numbers is the most representative of the entire population and furthermore, it has statistical properties that allow the researcher to make inferences about the population based on the results obtained from the sample (Orodha, 2005).

In the second and ultimate stage, three respondents from each of 100 entities were selected and served with questionnaires. Using a purposive sampling, chairperson or a member of the tender board in each entity was selected. Finally, a systematic sampling, two members, one from the entity's procurement department and another from the user department were selected. Thus, a total of 300 respondents were selected and served with the questionnaires. For the face to face interview, 20 Internal Auditors were randomly selected from the same 100 procuring entities. Choice of the respondents was

based on the existing public procurement institutional framework and set up in the PEs which consists of the Tender Boards, Procurement Management Units and User departments. These are the key players in the management of procurement process in the public entities in Tanzania.

The above approach was also adopted by Marendi (2015) in her study which investigated on implementation of public procurement legal framework and performance of State Corporations in Kenya. The target population of state corporations were divided into four categories, Executive Agencies, Regulatory Agencies, Research Institutions and Public Training Institutions. Each stratum was properly represented so that the sample size drawn from each stratum was proportionate to the stratum share of the total population to ensure heterogeneity. Generally, this approach was more applicable to this research because it has a higher statistical efficiency and it is much easier to carry out (Zikmund, 2010).

3.7 Data Collection Instruments

Collection of quality data was given its due gravity. As suggested by Mugenda (2008), validity and reliability of the data are functions of the quality of the tools used in collecting information. In order to ensure that validity and reliability of the data was achieved, the choice of appropriate data collection tools and the application of proper data collection techniques were adhered to. In obtaining the required information, the study used a combination of data collection instruments. Both primary and secondary data were collected.

3.7.1 Primary Data

Primary data was collected using self- administered questionnaires and were mainly used for the survey. The structured questionnaires solicited information from all key respondents from various departments within the respective and surveyed entities. The

questionnaires composed of statements addressing each of the study variables. From the responses, the respondents' views on performance of the procurement function in their respective entities were established. The questionnaires were prepared and tested before the actual survey in order to reveal any unresponsive questions. For reliability and validity assurance, the study adopted a standard questionnaire on assessment of public procurement system in developing countries as per OECD guidelines. However, since a large part of the data was collected through questionnaires, and hence subjective, the problem of 'Data Quality' was addressed by proper and consistent selection of respondents. Therefore, the selected respondents for this study were heads of procurement departments, members of the tender boards and representatives of user departments. Based on the existing institutional arrangement in the procuring entities, these are key players in the execution of the procurement activities and therefore knowledgeable of the procurement process in any public entity in Tanzania. For the face-to-face interviews, twenty (20) Internal Auditors from the selected procuring entities were purposively selected. The researcher felt that internal auditors could provide candid and unbiased opinion that could supplement the data collected through questionnaires. The Internal auditors were asked unstructured questions which helped for further clarification in terms of probing questions.

3.7.2 Secondary Data

Documentary review was applied as another major source of data. The usefulness of documents was based on their stability, in that they were reviewed repeatedly to validate information that was obtained from other sources. In this study key documents relating to procurement process, decisions and management in general were reviewed. These included Annual Performance Evaluation Reports by the PPRA for the three financial years under investigation, Internal and External Auditors Reports; Management Responses and Actions on the auditors' findings; PPRA Weekly Procurement Journal; Audited Financial Statements; Controller and General Auditor' Reports and the PPRA website.

3.8 Data Collection Procedures

This is referred to the set of rules that must be followed to ensure that data collection tools are applied perfectly and resourcefully. This study collected both primary and secondary data. Secondary data were used to enrich information obtained from primary sources. The researcher used a self-administered questionnaire and in some cases, an interview guide. Self-administered questionnaires was the main data collection instrument used in this study. As propounded by Dempsey (2003) questionnaires were preferred because they are effective data collection instruments that allow respondents to give much of their opinions pertaining to the research problem.

In order to obtain quality information that will inform healthy analysis, the researcher used two trained enumerators for distributing the questionnaires. In distributing and collecting the questionnaires, the Drop and Pick method was applied. Emails and cell phone calls were used in communicating and reminding the selected respondents on the questionnaires distributed to them. By using questionnaires, the requested information on factors determining performance of procurement in the public entities was gathered.

Interview guides were used to gather in-depth information from the internal auditors on the existing procurement procedures, practices and performance of the procurement department. The information obtained from the internal auditors was used to supplement the findings gathered through the questionnaires administered as they provided more evidence and clarification. As opposed to the questionnaires method, the face-to-face interviews were solely conducted by the researcher himself.

For the secondary data, various documents like annual performance reports, audited financial statements, procurement audit reports, CAG's reports were referred to. The PPRA Annual Performance and Evaluation Reports and its website were very relevant and useful particularly in confirming the compliance and performance scores obtained by respective entities during the previous procurement audits.

3.9 Pilot study

In order to assess the reliability of the instruments of the study (questionnaires) and validity of the data to be collected, a pilot study was conducted prior to the main study. As suggested by Leedy and Ormrod (2006), a pilot study is an excellent way to determine the feasibility of the study. The researcher understands the importance of conducting a pilot study that include gathering field experience, to be aware of the logistics involved and most importantly, to get the overall view of the responses to the survey questions. This in turn enabled the researcher to adjust any observed weaknesses in the data collection tools before the actual survey was conducted.

3.9.1 Reliability

Reliability in research is defined by Mugenda and Mugenda (2003) as a measure of the degree to which a research instrument yields consistent results or data after repeated trials. This means that if people answered the same question the same way on repeated occasions, then the instrument can be said to be reliable (De Vaus, 2002). Reliability is influenced by random error, which is defined as the deviation from a true measurement due to factors that have not been addressed by the researcher. Reliability in research can be internal or external.

In this study reliability analysis was used to test the internal consistency of the research instruments for the purposes of identifying those constructs in the questionnaire with low correlations in order to exclude them from further analysis. Cronbach's alpha a coefficient of reliability that gives unbiased estimate of data was used to test reliability of the answered questionnaires. Results of the reliability test for this study has been presented and discussed in Chapter Four.

3.9.2 Validity Test

Validity is accuracy and meaningfulness of inferences, which are based on the research results. It is the degree to which results obtained from the analysis of the data actually represent the phenomena under study (Joppe, 2000; Mugenda & Mugenda, 2003). Comments and guidance provided by the research supervisors and other experts in the field of procurement were of great and valuable inputs in validating the research instruments.

3.10 Data Analysis and Presentation

According to Mugenda and Mugenda (2008), data analysis is the process of cleaning and summarising data so that it becomes information that can be easily interpreted and conclusions made to support decision-making. It is the process of editing and reducing accumulated data to a manageable size, developing summaries, looking for patterns, and applying statistical techniques (Cooper *et al.*, 2008). In this study the units of analysis were the procuring entities scattered country- wide and units of enquiry were the Heads of the procurement department, Member of the tender board and Head of User department all of whom are fully involved and knowledgeable in the procurement processes and decisions of the entity. Before analysis, the collected data were edited, coded, classified, and tabulated so that they are amenable for analysis. The analysis used both descriptive and inferential analyses as explained below.

3.10.1 Descriptive analysis

Descriptive statistics based on the data obtained through the questionnaire were used to obtain preliminary findings that informed further analysis. Such descriptive analysis provided simple summaries of the characteristics of the sample such as measures of central tendency, frequencies and percentages, among others. The data for the independent variables were qualitative in nature whereas data for the dependent variable

were quantitative. The limitation of this analytical procedure however, is that it does not show the relationship among variables and influence that each variable may have on the response variable and hence the need for inferential analysis.

3.10.2 Inferential analysis

This analysis involved factor analysis and the fitting of the multiple linear regression model in which inference about the factors that influence procurement performance could be deduced in which the F and t- tests were applied. Multiple regressions were used to measure the linear relationships that exist between all independent variables and performance of the procurement department. The relationship between the dependent variable (Y) as a linear function of the independent variables (Xs), with the error term (ε) was represented using the following regression model

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \varepsilon ,$$

Where:

Y = Performance of the Procurement Function

X₁ = Legal and Regulatory Framework

X₂ = Procurement Professionalism

X₃ = Private Sector Participation

X₄ = Transparency in Procurement Process

X₅ = Integrity in Procurement Process

β_0 = Constant of regression which is the value of the dependent variable when the independent variable is 0.

$\beta_1 - \beta_5$ = Coefficients of the Model

ε = Error Term

3.11 Operationalization of Research Variables

Operationalization of study variables is important as it enables the researcher to measure variables quantitatively thus enabling testing of the formulated hypotheses. The independent variables in this study were assessed using corresponding indicators as summarized in the table below. The study variables were operationalized based on the research objectives.

Table 3. 2: Study Variables, Indicators and Measurements

Variable	Indicator (s)	Variable Measurement
Legal &Regulatory Framework (X1)	<ul style="list-style-type: none"> ▪ Procurement Methods ▪ Tender Advertising Rules ▪ Tender Documentation ▪ Tender Receipt & Opening ▪ Tender Evaluation Criteria 	A 5-Point Likert scale with Ordinal ranking, where; <ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree
Procurement Professionalism (X2)	<ul style="list-style-type: none"> ▪ Procurement Records and Documents ▪ Staffing in the Department ▪ Staff Competence ▪ Independence of Functions ▪ Professional Code of Ethics 	A 5-Point Likert scale with Ordinal ranking, where; <ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree
Private Sector Participation (X3)	<ul style="list-style-type: none"> ▪ Access to Opportunities ▪ Extent of private sector participation ▪ Existence of Public Private Partnerships 	A 5-Point Likert scale with Ordinal ranking, where; <ol style="list-style-type: none"> 1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree

Variable	Indicator (s)	Variable Measurement
	<p>(PPP)</p> <ul style="list-style-type: none"> ▪ Procurement from Agency ▪ Major contracts awarded to the private sector firms 	<p>4. Agree 5. Strongly Agree</p>
Integrity in the Procurement Process (X4)	<ul style="list-style-type: none"> ▪ Provisions on Unethical Behaviour ▪ Anti-Corruption/Fraud Measures ▪ Secure Mechanism for Whistle Blowers ▪ Code of Ethics & Conduct ▪ Actions taken against law defaulters 	<p>A 5-Point Likert scale with Ordinal ranking, where;</p> <p>1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree</p>
Transparency in procurement process (X5)	<ul style="list-style-type: none"> ▪ Publication of information ▪ Procurement audits ▪ Access to information ▪ Information to auditors ▪ Follow ups and actions 	<p>A 5-Point Likert scale with Ordinal ranking, where;</p> <p>1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree</p>
Performance of Procurement department (Y)	<ul style="list-style-type: none"> ▪ Level of Compliance with Legal framework ▪ Level of Achievement of Procurement Objectives 	<ul style="list-style-type: none"> • Scores on Compliance/ Performance Audits by the PPRA • % of On-Time Deliveries • Perception of Quality on the procured items • Actual Vs Market Prices

3.12 Research Ethics

In understanding the importance of ethics in academic writing, all ethical issues were observed in this study. From the outset and prior to visiting the surveyed entities, an introduction letter was obtained from the university (JKUAT) management with a view to introducing the researcher. The letter served a very useful purpose as it was clearly stated that the information that were solicited were purely for academic purposes. Moreover, in an introduction section of the questionnaire, it was stated that the respondents and information provided shall remain anonymous during and after the study. Respondents were therefore asked to disclose neither their personal names nor names of their organizations anywhere in the questionnaire document. In some cases, courtesy visits were paid to some of heads of the surveyed entities prior to actual data collection. The aim of such visits was to explain the purpose of the study and further request for positive participation by the entity's staff. The two enumerators were also oriented on the need to observe confidentiality on any information, being primary or documentary that they might come across in the course of conducting the study. Any documents or information sought but regarded as 'confidential' by the entity was excluded from the list of the required information. Generally, in this study, ethics and confidentiality were observed from preparation of the instruments, actual data collection, analysis and interpretations.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the empirical findings of the study mainly based on the survey questionnaires and interview guides. Data was collected from personnel involved in the procurement process in each of the surveyed entities. These were from user departments, procurement management units and tender boards. Results of analysis of the data collected and their discussions have also been presented in this chapter. The main objective of the study was to determine factors that influence performance of the procurement function in public entities in Tanzania. Specifically, the objectives were to determine the effect of legal and regulatory framework; to determine the effect of procurement professionalism; to determine the effect of private sector participation; to determine the effect of transparency in the procurement process and to determine the effect of integrity in the procurement process on performance of procurement departments (here referred to by the Tanzanian Procurement Law as ‘Procurement Management Units’).

4.2 Results of Pilot Study and Other Tests

In order to assess the reliability of the instruments of the study (questionnaires) and validity of the data to be collected, a pilot study was conducted prior to the main study. As suggested by Leedy and Ormrod (2006), a pilot study is an excellent way to determine the feasibility of the study. The researcher understands the importance of conducting a pilot study that include gathering field experience, to be aware of the logistics involved and most importantly, to get the overall view of the responses to the survey questions. This in turn enabled the researcher to adjust any observed weaknesses in the data collection tools before the actual survey was conducted.

The pilot study was conducted in ten procuring entities selected randomly but for convenience purposes. Three questionnaires were sent to ten public entities that geographically could easily be reached with minimum cost and short due to their close proximity. A total of 30 questionnaires were distributed and only 24 were filled in and returned. After the pilot testing the instruments were modified by incorporating respondents' views and observations as appropriate. Example of such improvement is randomizations of the variables and their associated questions to avoid bias. Also long statements with and /or conjunctions posed a challenge to some respondents, and the same were rectified as appropriate.

As a result of the randomization of variables, specific questions or statements from the questionnaire relating to each of the five independent variables were as depicted in table 4.1 below.

Table 4.1: Variable Questions in the Randomized Questionnaire

Independent Variables	Question/Statement Numbers
Legal and Regulatory Framework	1, 6, 11, 16, 21
Procurement Professionalism	2, 7, 12, 17, 22
Private Sector Participation	3, 8, 13, 18, 23
Transparency in the Procurement Process	4, 9, 14, 19, 24
Integrity in the Procurement Process	5,10,15, 20, 25

Each of the independent variable was assigned a code which was subsequently used to identify the corresponding question or statement from the questionnaire. For example, the variable Legal and Regulatory Framework was coded as 'LF' and hence statements with number 1, 6, 11, 16 and 21 were all labelled 'LF'. The same applied to the other variables with their corresponding statements as shown in the table above. The codes and their corresponding statements were only known to the researcher.

4.2.1 Reliability Test

An important step in analysing questionnaire results is to establish the reliability and validity of the survey instruments. Reliability of a research instrument refers to the degree to which the instrument can produce consistent and stable measurements over a number of tests (Mugenda & Mugenda, 2003). Reliability can thus be explained as the extent of accuracy (reliability) or the extent of inaccuracy (unreliability), which can either be internal or external. According to George and Mallery (2003), Cronbach's alpha is the most common reliability coefficient which estimates internal consistency by determining how all items on a test relate to all other items and to the total test - internal coherence of data, where " $\alpha > .9$ – Excellent, $\alpha > .8$ – Good, $\alpha > .7$ – Acceptable, $\alpha > .6$ – Questionable, $\alpha > .5$ – Poor, and $< .5$ – Unacceptable". In this study, the Cronbach's alpha reliability coefficient expressed as a coefficient between 0 and 1 was used. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. According to the rules of thumb, the value of alpha of > 0.7 is acceptable.

Based on the reliability test, the value of Cronbach's alpha in all constructs in the questionnaire were above the suggested value of 0.7. Table 4 depicts the reliability coefficients of the study variables in which the Legal and Regulatory framework had a reliability of 0.864; Procurement Professionalism had a reliability of 0.894; Private sector participation had a reliability of 0.904; Transparency had a reliability value of 0.924 and Integrity had a reliability value of 0.859. On the basis of reliability test, it was supposed that the scales used in this study were reliable to capture the constructs and could fairly represent opinions of other respondents.

Table 4. 2: Reliability Test Results

Variable	No. of items	Reliability Cronbach's Alpha	Conclusion
Legal and Regulatory Framework	5	0.864	Reliable
Procurement Professionalism	5	0.894	Reliable
Private Sector Participation	5	0.904	Reliable
Transparency in the procurement process	5	0.924	Reliable
Integrity in the procurement process	5	0.859	Reliable

4.2.2 Factor Analysis and Other Technical Considerations

The study made use of the correlation matrix to examine to see if the data meets technical requirements for 'Factor Analysis'. Field (2009) suggests that there are three main reasons for using factor analysis; to develop a scale to measure performance of the procurement function, reduce the variables to a manageable size and to have a better understanding of the variables. According to Cooper and Schindler (2008), factor analysis is a technique used for specific computational techniques. It is a way of explaining the relationship among variables by combining them into smaller factors (Coakes & Steed, 2001; Zikumnd, 2003). The scales usually start with many questions, and then by using factor analysis are reduced to smaller number (Pallant, 2007). The reduced results are then used for other analysis such as multiple regression analysis. Through factor analysis, the size of the correlation coefficients in the matrix were looked at to see if is preferred. Correlations among the independent variables were at least 0.3 and less than 0.6 indicating the absence of multicollinearity.

Other diagnostic checks were performed which included the Kaiser- Meyer- Olkin (KMO) which measures sampling adequacy of the items. The KMO test showed that the sampling adequacy was at 0.924 (92%) indicating that the sample was adequate. Bartlett’s Sphericity test on the other hand, was used to test the null hypothesis that the variables in the population (as opposed to the sample which provided the data) are uncorrelated and the null hypothesis was rejected at 5 percent level of significance to allow proceed with factor analysis as shown in Table 4.3 below.

Table 4.3: KMO and Bartlett’s Tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.924
	Approx. Chi-Square	2649.049
Bartlett's Test of Sphericity	df	300
	Sig.	.000

4.3 Response Rate

This study was conducted in one hundred (100) public entities sampled from 298 entities that were audited by the PPRA during the previous three financial years, that is, from the 2011/2012 FY though 2013/2014 FY. The sampled and surveyed entities are geographically scattered all over the country and thus can be considered as a fair representation of the target population. The response rate was very good as 84 (84%) out of 100 entities were responsive. Furthermore, the 84 responsive entities comprised 247 (82.3%) of the targeted respondents. According to Mugenda and Mugenda (2003) and Babbie (2004), a response rate of 50% is adequate, 60% is good and 70% and above is very good. The recorded response rates of 84% and 82.3% (for entities and respondents respectively) in this study were very good and therefore adequate for analysis. In this study, the units of enquiry is different form the units of analysis. The units of inquiry for the survey (questionnaire) were the heads of the procurement

departments, members of the tender boards and heads of the user departments, whereas for the face to face interview information was obtained from the Internal Auditors. Units of analysis on the other were the 100 entities selected from the sampled or accessible population. Hence, the results obtained from the analysis of the information collected from the above respondents relate to the selected and surveyed 100 procuring entities and not the respondents who provided the information.

The sampled and surveyed entities were classified according to the existing categories of public entities in Tanzania. The six (6) main categories are Ministries, Parastatals, Executive Agencies, Independent Departments, Local Government Authorities (LGAs) and Regional Administrative Secretariat (RAS). In all of these entities, the questionnaires were distributed and collected through the ‘drop and pick’ method. In each entity, the head of the procurement department was a contact person through whom the questionnaires were distributed and collected after being filled in by respondents. Emails and cell phones were used as the main communication methods in expediting and collection of the filled in questionnaires. The shortest collection period was one (1) day whereas the longest period was three (3) weeks. Generally, the drop and pick method was effective as it allowed respondents to complete the questionnaires in their convenient time and thus avoiding bias. This to some extent gave confidence to the researcher on the accuracy of the information provided.

Table 4.4: Response Rate

Category of the entity	Sample size	Response	Percentage
Ministries	6	6	100%
Independent Departments	8	7	87.5%
Executive Agencies	18	16	88.9
Regional Administrative Secretariat (RAS)	5	5	100%
Local Government Authorities (LGAs)	35	22	62.8%
Parastatal Organisations	28	28	100%
TOTAL	100	84	84%

The researcher acknowledges the fact that entities may belong to one category but differ in size. Differences in sizes can influence performance and thus be used to explain as to why one entity is performing better than the other. According to the Tanzanian Entrepreneurship Policy, 2003, size of the public entity is determined in terms of number of its employees, whereas an entity with 1-4 employees is a micro organisation and above 100 employees is a large organisation. Table 4.5 depicts various sizes of the surveyed entities.

Table 4.5: Size of the organization

Classification (Number of employees)	Count	Percentage
Micro Organisations (1 – 4 employees)	1	1.2%
Small Organisations (5 – 49 employees)	6	7.1%
Medium Organisations (50 – 99 employees)	7	8.3%
Large Organisations (100 and above employees)	70	83.3
TOTAL	84	100%

The above findings indicate that 1.2% of the surveyed public entities are micro organisations, 7.1% are small organisations, 8.3% are medium organisations and 83.3% are large organisations. Since majority of the surveyed organisations are large, one can fairly assume that procurement transactions in those organisations are huge. This may further suggest that those involved in the procurement process in such organisations have vast experience on challenges facing performance of the procurement function in the public sector in Tanzania.

Another aspect which the researcher deemed worthy to consider is the age of the organisation (in years) since its establishment. This informed us on whether there is a remarkable difference between long serving organisations and newly established ones in complying with the procurement law. This difference was important in order to ascertain whether age of an organisation has an influence on its performance. In this study, ages of the surveyed entities are as shown in Table 4.6 below:

Table 4.6: Ages of Entities

Classification (in years)	Count	Percentage
Less than 10 Years	11	13.1%
10 – 20 Years	17	20.2%
20 – 30 Years	6	7.1%
Above 30 Years	40	47.6%
Non response	10	12.0
TOTAL	84	100

4.4. Demographic Data

The demographic profile of surveyed respondents is based on selected variables depicting education and professional qualification, working experience, position within the entity, and experience in procurement. The objective of the designated profile is not only to have a basic descriptive understanding of the survey respondents but also to gain an insight into their ability to make ‘expert’ evaluative opinion with respect to performance of the procurement function. Three respondents from each of the surveyed entity were mainly included in this study; head of the procurement department (unit), member of the tender board and staff from any of the user departments within the entity. These were chosen based on their full and active participation in the procurement process of an entity as required by the existing procurement law.

4.4.1 Levels of Academic Qualifications

Academic education of personnel responsible for the procurement process and management is vital in ensuring public accountability and value for money through procurement transactions. For the same reason, this study intended to establish various levels of education among the staff responsible for the procurement process in the surveyed entities. The academic levels involved were Diplomas, Advanced Diplomas, Bachelor's Degrees, Master's Degrees and Doctorates (PhDs).

As indicated in Table 4.7 below, the findings show that 4.1% of staff responsible for procurement activities in public entities are Diploma holders, 1.6% had Advanced Diploma qualifications, 33.2% had attained Bachelor's Degrees, 60.7% are holders of the Master's Degrees and 0.4% had doctorate (PhD) qualification.

Emanating from the above findings it is evident that most of the staff responsible for the procurement activities in public entities has Master's Degrees implying that they have the necessary knowledge to perform the procurement functions effectively. This result is in concurrence with previous studies which suggested that organisational performance is associated with the levels of education of the employees (Juma, 2012; Kariuki, Awino & Ogutu, 2012; Kiage, 2013).

Table 4.7: Levels of Academic Qualification

Education category	Count	Percentage
Ordinary Diploma	10	4.1
Advanced Diploma	4	1.6
Bachelor's Degree	82	33.2
Master's Degree	150	60.7
Doctoral degree	1	0.4
Total	247	100

4.4.2 Professional Qualification

For a procurement function to be effective, the entity must be staffed with procurement professionals, trained and recognised by the professional body. In Tanzania, it is mandatory that any person practicing as Procurement or Supplies expert must be recognised and registered by the Procurement and Supplies Professionals and Technicians Board (PSPTB) established under Act No. 23 of 2007. The study therefore intended to ascertain whether those responsible for the procurement function (user depts, PMUs and tender boards), have been registered with their respective professional boards and in what categories. This was done to establish if these personnel have the necessary skills and knowledge and that they have complied with the professional registration requirements. The study did not limit itself to procurement professional board only; instead it broadened the scope to include other fields such as accountancy, engineering, law etc. This approach was relevant since from the Tanzanian public procurement point of view, effective public procurement requires people who have had substantial academic qualification and experience in either engineering, architecture, law, procurement and supplies management, quantity surveying, business administration , economic development planning or any related field (PPA, 2011, Sect. 23 (2)).

The findings indicate that majority of the respondents (78.1%) had professional qualifications which further implies that they have been registered with and recognised by the respective Professional Boards. In addition to heads of the PMUs who are registered by the Procurement Professional Boards, there are also Accountants (CPA holders) registered by the National Board for Accountants (NBAA), Professional Engineers registered by the Engineers Registration Board (ERB) and Advocate/ Lawyers registered by the Law School of Tanganyika. The findings therefore confirm that majority of those engaged in the procurement function have professional qualifications necessary to handle the procurement process ethically. This result concurs with the findings of a study conducted by Kiage (2013) which investigated factors affecting procurement performance in Kenya. The study found that staff competency positively

affected performance of the procurement function at the entity. The study further recommended that management of the procurement processes should be administered by qualified, competent and experienced procurement professionals.

Table 4.8: Professional Qualification

Having Professional Qualification	Count	Percentage
Yes	221	78.1
No	226	8.5
Total	247	100

4.4.3 Working Experience (in years)

The study intended to find out the respondents' working experience in their respective entities. This was established by looking at number of years for which one has been working in the entity. Performance of an employee in a given entity depends on among others, his/her knowledge of the core activities of the entity concerned. The level of knowledge on the other hand may be dependent on the duration (period) for which the employee has been working with the entity. Table 4.9 below indicates that 27.5% of the respondents had less than 5 years working experience, 40.1% had working experience of 5 – 10 years, 13.7% had 10 – 15 years of experience, 6.1% had a working experience of 16 – 20 years and 12.6 % had more than 20 years working experience.

The presented findings suggest that majority of the respondents (about 70%) had adequate working experience of more than Five (5) years. This further suggests that they are knowledgeable of the core activities of the entity including procurement and supply chain management. In turn this justifies that the study had actually used the right respondents whose opinions fairly represent others in the target population. As propounded by Baxter (2008), respondents with high working experience assist in

providing reliable data on the sought problem since they have technical experience on the problem being investigated by the study.

Table 4.9: Working Experience of respondents

Categories in years	Count	Percentage
Less than 5 Years	68	27.5
5 – 10 Years	99	40.1
10 – 15 Years	34	13.7
16 – 20 Years	15	6.1
Above 20 years	31	12.6
Total	247	100

4.4.4 Training on the Public Procurement Act and Regulations

For compliance with public procurement rules and procedures, focus need to be placed on improving familiarity with the existing procurement law and regulations amongst procurement staff and other personnel involved in the procurement process. The study intended to establish whether officials involved in and responsible for the procurement process and decisions had attended any training including short courses, seminars or sensitisation workshops on the Public Procurement Act and its Regulations.

As indicated in Table 4.10, majority (81.0%) of the respondents admitted to have attended training on public procurement law and its subsequent regulations. The findings are in agreement with the study by Gelderman *et al.* (2006) who conducted a study on Public procurement and EU tendering directives – explaining the non – compliance. The study found that familiarity with the procurement rules has a positive, statistically significant impact on compliance. The study further suggested that training procurement staff on the rules would be an effective tool for increasing the compliance levels.

Studies by Gesuka and Namusonge (2013), Migosi, Ombiki and Evusa (2014); Kechibi (2012) also support that training on the procurement laws and regulations increases levels of implementation and efficiency in the procurement function. Inversely, findings from the study conducted by Eyaa and Oluka (2011) revealed that lack of familiarity with procurement rules results in poor compliance levels and leads to inefficiency thus negatively affects an organisation’s performance.

Table 4.10: Training Status on Public Procurement Law and Regulations

Training status	Count	Percentage
Attended	200	81.0
Non attended	47	19.0
Total	247	100

4.5 Performance of the Procurement Department

Performance of procurement departments of the public entities was a dependent variable of this study. As defined by Sabine (2004), procurement performance is about seeking to answer the basic question of ‘how well the procurement *process* is and how good the procurement *outcome* is’. In assessing the performance of the procurement department therefore, two components procurement process (measured in terms of level of compliance with the procurement law and regulations) and procurement objectives (measured in terms of time delivery, quality and cost) of the procured goods, works and services were considered.

4.5.1 Level of Compliance with Procurement Law and Regulations

Public procurement in Tanzania is governed by the PPA and its attendant regulations. Additionally, there are guidelines and standard documents issued by the PPRA to guide the procurement process and procedures. The procuring entities on the other hand, are required by the said law to comply with all provisions of the law and its regulations together with the instructions and guidelines issued by the PPRA as an oversight body. It is therefore true to say that performance of procurement function in the public entity is first assessed in terms of the extent to which the entity complies with the existing legal and regulatory requirements.

The study therefore sought to establish the extent to which the entities complied with the current legal and regulatory framework. Respondents were asked to mention the score (in percentage) obtained by the entity during the previous procurement audit conducted by the PPRA. According to PPRA guidelines, a score of 50% and above is considered as *Compliant* whereas a score below 50% is considered as *non – compliant*. The given scores were also confirmed by reviewing the entity's Compliance/ Performance Audit Reports prepared and issued by the PPRA on annually basis.

The results as depicted in Table 4.11 below indicate that 1.6 % of the surveyed entities scored between 0 – 20%, 4.1 % of the entities scored 30 – 49% whereas 23.1 % scored between 50 – 69%. The findings also indicated that 60.7% of the entities scored between 70 – 89%, whereas 10.5 % of the entities scored between 90 - 100% in the last procurement audit. From these statistics, it is evident that majority of the procuring entities (about 94% of them) had scored above 50% in the procurement compliance audits and thus declared as compliant with the rules and regulations.

Table 4.11: Level of Compliance based on Audit Scores (in %)

Categories	Frequency	Per cent
0 – 29	4	1.6
30 – 49	10	4.1
50 – 69	57	23.1
70 – 89	150	60.7
90 – 100	26	10.5
Total	247	100

In responding to the follow up question in which respondents were asked to give reasons for the achieved score, 95% of the respondents mentioned that adherence to the procurement law, regulations and instructions coupled with professional competency of head of the procurement department is the major reason for the recorded scores. However, 5% of the respondents argued that interference by senior officials, unfamiliarity with the PPA and regulations and poor record keeping as some of the challenges facing the procurement department and thus negatively affecting its level of compliance with the existing law and regulations.

The presented findings which is based on audit results, is in agreement with the previous study conducted in Uganda by Kakwezi and Nyeko (2010) whose main objective was to identify financial and non-financial measures that can contribute to improved performance of the procurement function. On the financial measures, findings of the study indicated that procurement audit is the most important measure of procurement performance.

A study on compliance assessment of the Ghanaian Public Procurement Act, 2003 by Agbesi (2009) indicated that non-compliance with the Procurement Act has resulted in a number of challenges including delays in completion of projects, abandoned projects and loss of value for money. All these have been translated into inefficiency and ineffectiveness of the procurement function. In other studies on compliance by Eyaa and Oluka, (2011); Gelderman *et al.* (2006); Mwangi and Kariuki, (2013) there is a consensus that performance of the procurement function significantly correlates with the level of compliance with the procurement rules and regulations. Furthermore, a study by Eyitope *et al.*(2014) indicated that institutional and political interferences are the major reasons for non-compliance with procurement proceedings in procurement of works in Nigeria. The study recommended for more transparency and objective competition whilst avoiding any political influence in the procurement process.

4.5.2 Level of Achievement of the Procurement Objectives

In addition to measuring the extent at which the function has complied with the laid down procurement policies and procedures (*process*), performance of the procurement department can also be measured by the extent at which the function has actually managed to achieve procurement objectives of making available the required goods and services of the right *quality*, at the right *time* and acquired at the right *price / cost*. The study sought to establish the extent to which the procurement department has achieved the procurement objectives measured in terms of time, quality and cost. The three elements (time, quality and cost) were also used by previous studies by Adams *et al.* (2014) and Mady *et al.* (2014). The key results of the two studies indicated that to a great extent performance measurements utilised in public departments were on Time delivery, best Price and right Quality. In this study, respondents were asked to give their opinions on the extent to which their procurement departments fosters availability of the required goods, works and services at the right time, quality and cost and thereby contributing to the achievement of the corporate strategy of the respective entities. Results of the findings as depicted in Table 4.12 indicate that 17.8 % of the respondents

were of the opinion that achievement of the procurement objectives has been Very Large, 56.6% Large, 23.5% Moderate, 2.0% Low.

Table 4.12: Achievement of Procurement Objectives

Category	Frequency	Per cent
Very large	44	17.8
Large	140	56.6
Moderate	58	23.5
Low	5	2.0
Total	247	100

On the follow up question, respondents were asked to mention the common complaints regarding the functioning of the procurement department. Majority of the respondents indicated that the required goods and services are not available on time and according to the procurement plan. Likewise, there have been remarkable differences between the contractual time and completion time with regards to construction and works projects.

These results were substantiated by the opinion gathered through the face to face interviews with internal auditors of some of the surveyed entities. On achievement of the procurement objectives, 68 % of the interviewees observed that untimely availability of the requirements as the main complaints, 27% observed that most of the goods are procured *at* higher prices compared with the market prices, whereas 5% % indicated poor quality of the procured goods and services as the main problem. Summary of problems constraining the achievement of procurement objectives in public entities is shown in Table 4.13 below:

Table 4.13: Complaints on Achievement of Procurement Objectives

Categories	Percentage
Poor quality	5%
Higher prices	27%
Untimely availability of the requirements	68%
Total	100

Our face to face interviews revealed that untimely availability of the required goods, services and untimely completion of works projects to a great extent have been caused by delays in availability of funds from the central government. As financial budgets of most of the entities depend on the government coffer, releases of the government funds have always been delayed hence most of the entities' activities including procurement have been suffering as a result. Government funds have either been delayed or released in partial or not released at all. Hence, in most cases procurement is done on the basis of the amount of funds available and not according to the approved and released procurement plans.

The above findings concur with study conducted by Kechibi (2012) who conducted a study on factors affecting public procurement performance in local government authorities in Tanzania. He found that there is a delay in release of funds from the treasury to entities and such delays of funds hinder smooth implementation of the annual procurement plans with its associated consequences mainly untimely availability of the required goods, works or services.

On costs of procurement, interviewees singled out the prices quoted by suppliers listed and approved by the government procurement and services agency (GPSA) as comparatively higher than the current market prices. Though the entities are required by the procurement law to procure from the agency using framework contracts for routine items, but prices charged through this arrangement is sometimes higher by even 10% to 50% when compared to prices offered by the market on same specifications and items. In our face to face interviews, it was revealed the entities were complying with the law by procuring from the GPSA approved suppliers even if the prices are higher than those offered by the market. When asked why prices quoted by GPSA supplier are higher than those offered by the market, respondents argued that the public entities take so long to pay its suppliers even when goods have been delivered and consumed some months or years ago. Suppliers have therefore to consider ‘the future value of money’ by inflating prices when giving their quotations. These findings however, conflict with the study by Ivar, Paula and Erik, (2011) who found that in the highly competitive procurement markets, there is reduction in the procurement costs and this brings about efficient procurement outcomes.

4.5.3 Measures of Performance Ranked by their Relative Importance

The study conceptualised five variables that were thought to best explain performance of the procurement activities in the public entities. The variables legal framework, procurement professionalism, private sector participation, transparency and integrity in the procurement process were used. Each of these variables constitutes five attributes and was ranked by their relative importance as shown underneath.

a) Legal and Regulatory Framework

Table 4.14: Legal and Regulatory Framework Attributes Ranked by Relative Importance

Code	Legal & Regulatory Framework Attributes	Rank	Mean	SD	SE
P2.1LF	Choice of procurement methods comply with the applicable law and regulations	1	4.87	6.106	0.393
P2.16LF	Submission, receipt and opening of tenders are in accordance with the applicable procurement regulations and instructions	2	4.58	0.606	0.039
P2.21LF	Tender evaluation and awarding criteria comply with the applicable procurement law and regulations	3	4.49	0.631	0.040
P2.11LF	Tender documentation in my entity adhere to the applicable procurement law and regulations	4	4.44	0.634	0.040
P2.6LF	Tender advertising rules in my entity are in accordance with the existing procurement regulations	5	4.32	0.729	0.047
	Mean		4.54		

From Table 4.14 above the top three attributes that mostly contribute to influencing the legal and regulatory framework are procurement methods, tender receipts and opening and tender evaluation and awarding criteria. However, the choice of procurement methods takes the lead with the mean of 4.87 higher compared to the two attributes. Tender advertising ranked the lowest with an average of 4.32. The descriptive would argue that, in order for the entities to comply with the legal and regulatory framework,

more efforts should be exerted on choice of procurement methods. This result is in agreement with the previous studies by Basheka, (2008); Eyaa and Oluka(2011); Rossi (2010) who found that selection of methods of procurement is a critical aspect in ensuring that procurement is conducted in a manner that maximises competition and achieve economy, efficiency, transparency and value for money.

b) Procurement Professionalism

Table 4.15: Professionalism Attributes Ranked by Relative Importance

Code	Professionalism Attributes	Rank	Mean	SD	SE
P2.2PR	Records and documents related to procurement and contract management are safely kept in the procurement department	1	4.22	0.642	0.041
P2.22PR	The procurement staff comply with the Tanzanian Procurement Professionals' code of ethics and conduct	2	4.21	0.718	0.046
P2.12PR	Officials involved in procurement activities are competent enough to perform their respective responsibilities	3	4.03	0.813	0.052
P2.17PR	Officials involved in the procurement process and decisions perform their respective duties independently	4	4.02	0.942	0.060
P2.7PR	The procurement department is adequately staffed with qualified professionals	5	3.74	1.031	0.066
Mean			4.04		

According to Table 4.15 above, record keeping and compliance with the professional Code of Ethics are the two attributes that greatly influence procurement professionalism with a Mean of 4.22 and 4.21 respectively. This is closely followed by Competence and Independence of officials involved in the procurement process with a Mean of 4.03 and 4.02 respectively. Surprisingly, adequacy and professional qualification of staff within the procurement department is ranked the lowest in this variable with a Mean of 3.74. The presented descriptive would suggest that in order to ensure professionalism in the procurement process, there should be evidence of two and closely related practices within the procurement department;- proper and safe keeping of all documents and records used in the procurement process and decision, and compliance with the Professional Code of Ethics by the procurement staff.

The results collaborate well with studies by Eyaa and Oluka (2011) and Amayi and Ngugi (2013) who found that adherence to professional code of ethics strongly correlate with procurement performance in public institutions. In Tanzania, there is mandatory registration with the Procurement Professional Body for all those practicing as procurement officers as required by Act No. 23 of 2007. Subsequent to this Act, there is a Code of Ethics and Conduct that guide the behaviour of all officials while performing the procurement functions. The above findings therefore justify the existence of the professional code of ethics in the procurement process.

a) **Private Sector Participation**

Table 4.16: Private Sector Participation Attributes Ranked by Relative Importance

Code	Private Sector Participation Attributes	Rank	Mean	SD	SE
P2.3PVT	Procurement opportunities are freely accessed by private sector organisations	1	4.27	0.771	0.049
P2.23PVT	Most of the major procurement contracts are awarded to the private sector organisations	2	4.16	0.909	0.058
.18PVT	There are specific goods and services procured from government agencies as required by the law	3	3.90	0.931	0.060
P2.8PVT	Private sector organisations actively participate in the procurement opportunities offered	4	3.74	0.887	0.057
P2.13PVT	For some works, my entity works with partnership with the private sector organisations through the PPP arrangements	5	3.58	0.906	0.058
Mean			3.93		

Based on the results as indicated in Table 4.16 above, it can fairly be argued that free accessibility to the procurement opportunities offered by the public sector entities, determines the level of participation by the private sector organisations on the same. Free accessibility ranks higher with a Mean of 4.27 followed by major contracts awarded to private sector entities with a Mean of 4.16, procurement of specific goods from government agencies with a Mean of 3.90 , private sector active participation with a Mean of 3,74 and the lowest ranked attribute is public - private partnership (PPP) arrangements with a Mean of 3.58. The findings are in agreement with responses during the interview with Internal Auditors who admitted that private sector organisations are free to participate in the procurement opportunities offered by the public institutions. To confirm this, respondents mentioned the opening tendering method which is open to all bidders and the GPSA approved list of suppliers of commodities by the private sector. Thus, from these findings, it can fairly be argued that the level of participation by the private sector is greatly influenced by the degree of transparency in the procurement process itself.

However, to a large extent these findings seem to contrast with previous studies on the level of private sector participation in the procurement opportunities offered by the public sector. A study conducted in Kenya by the OECD (2007) revealed that lack of procurement knowledge among private sector firms limited the degree of private sector participation in the procurement process and consequently limiting competition (PPOA, 2007). Studies in Tanzania (Mkalimoto, 2011; Kalugendo,2011; Kechibi, 2012; Juma, 2012;) found that despite the highest degree of transparency and openness, late payments to suppliers, service providers and contractors is one of the main reason discouraging the private sector firms from participating in the public procurement opportunities.

b) Transparency in the Procurement Process

Table 4.17: Transparency Attributes Ranked by Relative Importance

Code	Transparency Attributes	Rank	Mean	SD	SE
P2.9TR	Procurement activities are subject to internal and external audits	1	4.45	0.648	0.041
P2.19TR	Procurement auditors are provided with all of the necessary information related to the procurement procedures and decisions	2	4.35	0.745	0.048
P2.24TR	There are management follow-ups and actions on procurement auditors' findings and recommendations	3	4.34	0.700	0.045
P2.4TR	Important information relating to procurement process and decisions are published through the media	4	4.25	0.845	0.054
P2.14TR	Any interested stakeholder is able to know the process by which procurement contracts are awarded	5	4.14	0.774	0.049
Mean			4.31		

In assessing transparency in the procurement process, procurement audits both internal and external, ranks the highest with a Mean of 4.45 compared with the rest of the attributes. The second ranked is auditors being availed with the necessary information with a Mean of 4.35, closely followed by follow ups on auditors findings with a Mean of

4.34 and publication of important information with a mean of 4.25. On the other hand, ability of stakeholder to know the procurement process ranked the lowest in this variable with a Mean of 4.14. The results suggest that if the procurement process is to be transparent and seen to be transparent, it must first be subjected to internal and external audits.

The results are in tandem with the objectives and functions of the PPRA as an oversight body, which is responsible for monitoring compliance with the procurement law and regulations by conducting procurement audits in all procuring entities. From the Tanzanian public procurement practices, assessment of the performance of procurement departments in the public sector entities is conducted through the auditing exercise. Usually the auditing is conducted by the country's public procurement oversight body or commissioned consultants on their behalf [PPA, 2011, Sect 9(1) (b) and 9(1) (i)]. In Kenya, the Public Procurement Oversight Authority (PPOA) plays an enforcement role to ensure that procurement activities of the PEs are periodically reviewed and monitored as outlined under section 9 of the Kenyan Public Procurement and Disposal Act (PPDA) No. 3 of 2005. The findings collaborate with previous findings by Kakwezi and Nyeko (2010) who conducted a study on 'Procurement Processes and Performance: Efficiency and Effectiveness of the Procurement Function' in Uganda. Findings of the study indicated that procurement audit is the most important measure of procurement performance. Another study by Mwangi and Kariuki (2013) also asserts that internal control has an effect on compliance with the public procurement law and regulation by the entity though in a varying degrees.

c) Integrity in the Procurement Process

Table 4.18: Integrity Attributes Ranked by Relative Importance

Code	Integrity Attributes	Rank	Mean	SD	SE
P2.5INT	There are provisions in the existing procurement law addressing unethical behaviour	1	4.30	0.782	0.050
P2.20INT	There are codes of ethics and conduct for all those involved in the procurement processes and decisions	2	4.18	0.740	0.047
P2.10INT	There are specific measures used to prevent and detect fraud and corruption in the procurement process	3	3.89	0.880	0.056
P2.15INT	There is a secure mechanism for those who have information and wish to report on any unethical behaviours in the procurement process	4	3.65	0.923	0.059
		5	3.40	1.080	0.069
P2.25INT	There is evidence of legal and/or disciplinary actions taken against those who have violated the procurement law and regulations				
Mean			3.89		

Based on the results as indicated in Table 4.18 above, existence of provisions addressing unethical behaviour ranks the highest of all the five attributes with a Mean 4.30, followed by existence of codes of ethics and conduct with a Mean of 4.18, measures used to prevent unethical practices with a Mean of 3.89, existence of secure mechanism for the whistle blowers with a Mean of 3.65, whereas existence of evidence (s) of legal or disciplinary action taken against those who violated the law ranks the lowest with a

Mean of 3.89. The managerial implication of this descriptive is that in order to ensure and maintain integrity in the procurement process, the guiding laws must have provisions prohibiting all malpractices and unethical behaviours in the procurement process and decisions. The findings are in agreement with Kalubanga *et al.* (2013) who observed that increased spending on government contracts justifies the opportunity for procurement fraud, and if not arrested, fraud can significantly impact on procurement performance.

These findings also are in conformity with the provisions of the Public Procurement Act in Tanzania which prohibits the procuring entities to award a tender to any person or firm engaging in corrupt or fraudulent practices in competing for the procurement contract. Other provisions in the PPA addressing unethical behaviour include conducts influencing public officers (PPA, 2011, sect. 84); disclosure of payment made by way of commission (PPA, 2011, sect. 85) and conduct of directors, servants or agents (PPA, 2011, sect. 86). These prohibitions in the guiding law are intended to ensure that both the procuring entities and bidders under public financed contracts proceed in a transparent and accountable manner during the procurement and execution of such contracts. Maintaining integrity in the procurement process is also supported by Namusonge (2011) who observed that procurement and supply chain functions are vulnerable to unethical behaviour which not only increases costs but also damage the reputation of the entity. Thus, maintaining a high level of integrity is necessary to prevent fraud, corruption and other unethical practices (OECD, 2007).

4.6 The Effect of Legal and Regulatory Framework on the Performance of Procurement Department

This was the first objective among the five specific objectives of the study. In this objective, the study intended to determine the effect of legal and regulatory framework on performance of the procurement function in public entities. The ‘effect’ in this particular study was used synonymously meaning ‘influence’. The objective was

analysed using descriptive analysis for this variable that was mainly presented in tables indicating frequencies and percentages as measures of central tendency for each of sub indicators. The factor scores for the sub indicators were then computed to obtain the total scores which were subsequently used for inferential analysis. This variable was measured by assessing sub indicators including scope of application and coverage of the regulatory framework; that is, the existing procurement law and its attendant regulations, procurement methods, advertising rules and time limits, tender submission and evaluation criteria.

4.6.1 Choice of Procurement Methods

In this sub variable the study intended to establish the extent to which selection of procurement methods comply with the existing law, regulations and instructions from the regulatory body. Respondents were asked to indicate (by ticking) the extent to which they agree or disagree with the statement relating to choice of procurement methods as applied to their respective organisations. Responses were ranked using a 5- point Likert Scale from Strongly Disagree to Strongly Agree. According to responses as depicted in Table 4.17, it shows that selection of procurement methods in most of the procuring entities comply with the applicable procurement rules, regulations and instructions.

Table 4.19: Choice of Procurement Methods Complying with Law

Category	Frequency	Per cent
Strongly disagree	2	0.8
Disagree	2	0.8
Neutral	5	2.0
Agree	110	44.5
Strongly agree	128	51.8
Total	247	100

Results from Table 4.19 reveals that majority of the respondents (96.3%) agreed that choice of the procurement methods in their entities were actually complying with the existing procurement legal and regulatory framework. This is an interesting result because part of the procurement planning in Tanzania is selection of a proper procurement method which leads to maximum competition possible while ensuring that quality of goods or services is obtained in a timely manner. These findings may further suggest that procuring entities apply the competitive tendering as the most preferred method as stipulated under section 64 of the PPA (2011). However, a study by Mwangi and Kariuki (2013) found that most of institutions believed that open tendering may not be an efficient procurement mechanism in complying with procurement law and regulations and therefore prefer the alternative procurement methods.

4.6.2 Tender Advertising Rules

In this sub variable, the study sought to establish whether procuring entities comply with the existing rules and regulations when issuing tender advertisements. Respondents were asked to indicate the extent to which they agree, disagree or otherwise on whether tender advertising rules issued by their respective entities are in accordance with the existing procurement regulations. Table 4.17 summarises the responses for this indicator.

Table 4.20: Tender advertising rules issued by my entity are in accordance with the existing procurement regulations

Category	Frequency	Per cent
Strongly disagree	2	0.8
Disagree	6	2.4
Neutral	17	7.0
Agree	114	46.1
Strongly agree	108	43.7
Total	247	100.0

Emanating from the above results, majority of the respondents (89.8%) were of the opinion that tender advertising rules issued by their respective entities comply with the existing procurement regulations. The findings in this study are in agreement with the study by Mwenyasi (2011) in which factors that lead to inefficient public procurement – a case of VETA Eastern Zone - were identified. The study indicated that 100% of the respondents were of the view that there is openness and fairness in respect with the tenders advertised by the entity. The implication of these findings is that to a large extent the tender advertisements complied with the applicable procurement regulations which insist on openness, transparency, fairness and competitiveness in the tendering process. The findings however, contradicts with the findings by Kalugendo (2011) who conducted a study on factors influencing the implementation of public procurement reform in public entities- a case study of Manyara Regional Secretariat. The study revealed that only 30% of the respondents were of the opinion that tenders advertisements issued by the Secretariat had complied with the existing procurement regulations.

4.6.3 Tender Documentation

The PPA (2011) requires that the tender document be worded so as to permit and encourage competition and that such document shall set forth clearly and precisely all the information necessary for a prospective tenderer to prepare tender for the goods, services and works to be provided [section 70 (2)]. Pursuant to this, regulations 120 and 121 of the Public Procurement Regulations (2013), spell out the contents of invitation for tender and contents of the tender documents respectively. In view of the foregoing, the study intended to ascertain the extent to which the tender documents kept by the procuring entities contained the required information and hence comply with the applicable regulations.

The results indicate that 96.0% of the respondents agreed that tender documentation in their respective entities adhered to the applicable procurement law and regulations as shown in the table below. Nevertheless, findings from this indicator significantly differ with the previous studies by PPRA (2006); Odhiambo and Kamau (2003); Chakubuta (2010) who indicated that tender documentation is one of the major weak areas in the Tanzanian public procurement system. It worthy to note here that, in the past recent the PPRA has been issuing instructions and guidelines on preparation of bidding documents. It therefore not surprising that there has been such improvement in the bidding/ tendering documents.

Table 4.21: Tender Documentation Adherence to Procurement Regulations

Category	Frequency	Per cent
Strongly disagree	1	0.4
Disagree	2	0.8
Neutral	7	2.8
Agree	114	46.2
Strongly agree	123	49.8
Total	247	100

4.6.4 Submission, Receipt and Opening of Tenders

Regulation 195(1) of the PPR 2013 requires the secretary of the tender board to receive and keep the tenders in a locked tender box or in a secure office space. The tender registration number, the date and time of arrival is recorded on the envelopes and remains sealed in safe place until they are opened. Regulation 196 (2) requires that all tenders submitted before the deadline is opened in public. The secretary of the tender

board is required to prepare minutes of the tender opening meeting, which may on request be provided to tenderers who submitted tenders.

In this indicator the study therefore sought to establish whether receiving, custody and opening of the tenders comply with the existing procurement regulations and instructions. It is expected that if the receipt, custodian and opening of the tenders is fair and transparent, then participants of the procurement process are likely to be satisfied by a decision that will be made subsequently. The opposite is always true, that if there is no fairness and transparency in the receiving, custodian and opening of the tenders, more disputes are likely to happen.

Results presented in Table 4.22 below indicate that 98.0% of the respondents were of the opinion that their respective entities complied with the applicable procurement regulations and instructions with respect to receipt, custodian and opening of tenders.

Table 4.22: Submission, Receipt and Opening of Tenders: Adherence to Procurement Regulations

Category	Frequency	Per cent
Strongly disagree	2	0.8
Neutral	3	1.2
Agree	89	36.0
Strongly agree	153	62.0
Total	247	100

4.6.5 Tender Evaluation and Awarding

The evaluation committee is responsible for evaluating on a common basis all opened tenders in order to determine the cost or price to the procuring entity of each tender. According to regulation 203 of the PPR (2013), the tender evaluation is supposed to be consistent with the terms and conditions prescribed in the tender documents and such evaluation shall be carried out using the criteria explicitly stated in the tender documents.

As regards to this indicator, the study intended to find out whether the entities comply with the applicable procurement law and regulations when evaluating tenders and subsequently awarding contracts to successful tenderers. The results according to the respondents are as shown in Table 4.23 below.

Table 4.23: Tender Evaluation and Awarding Criteria Compliance with the Law

Category	Frequency	Per cent
Strongly disagree	1	0.4
Disagree	1	0.4
Neutral	9	3.6
Agree	101	40.9
Strongly agree	135	54.7
Total	247	100

According the findings, 95.6 % of the respondents were of the opinion that tender evaluation and awarding criteria in their respective entities complied with the applicable procurement law and regulations.

In summary, all of the five sub variables in this variable demonstrated the highest level of compliance with the applicable rules, regulations and instructions. Cumulatively, this suggests that most of the procuring entities comply with the legal and regulatory framework that guides public procurement in Tanzania. These findings are in agreement with the findings of two studies conducted in 2006 and 2007 that assessed the national procurement system in Tanzania using the WB-OECD/ DAC Methodology. In these studies there is a consensus that apart from the observed overall improvement in the procurement system, specifically Tanzania scored higher in the Legal and Regulatory Framework compared to other pillars. This implies that the existing entire set of legal instruments which sets the rules of the procurement process is adequate in terms of scope and implementation.

In order to have data that is amenable for further analysis and interpretation, total scores for the variable was determined using factor analysis. As propounded by Kothari (2011), factor analysis is applicable when there is systematic interdependence among a set of observed variables and the researcher is interested in finding out something more latent which creates this commonality. Factor scores for the five sub variables were extracted from the above analysis on Legal and Regulatory variable and the same were then used to compute the total scores for the variables which ultimately used for the inferential analysis. Table 4.24 represents the results of the factor scores for the legal and regulatory framework.

Table 4.24: Factor Score for Legal and Regulatory Framework

Indicators	Factor scores
Choice of Procurement Methods	.858
Tender Advertising Rules	.842
Tender Documentation	.772
Tender Receipt, Custodian and Opening	.770
Tender Evaluation and Award	.755

4.7 The Effect of Procurement Professionalism on the Performance of Procurement Departments

Determination of the effect of procurement professionalism on the performance of procurement departments was the second objective of the study. The study sought to establish the professional training and education, staffing, knowledge, skills and capabilities of the personnel in the procurement department. In order to achieve the stated objective, respondents were asked questions on management of records and documents, staffing of the procurement department, competency of personnel involved in the procurement activities, independence of functions and powers in discharging procurement responsibilities and existence of the Professional Code of Ethics and Conduct.

As it was the case for the first objective, the analysis for this objective involved descriptive analysis for the independent variable that was presented in tables of measures of central tendency for each indicator. This was followed by factor scores for the indicators which were computed and total scores for the variables used for the inferential analysis. Finally, the ordinary least squares (OLS) regression was used to determine the relationship between the two variables and the effect of the procurement professionalism on performance of the procurement departments.

4.7.1 Safekeeping of records and documents

The PPA (2011) requires all procuring entities to maintain a record of its procurement proceedings in which it is involved, including the decisions taken and the reasons for it. The guiding law further requires that all procurement records be kept for a period not less than five (5) years from the date of completion of the contract and be available whenever required. Pursuant to this requirement of the law, the study sought to establish whether or not there is a safekeeping of records and information relating procurement

processes and decisions within the procuring entities. The results are as summarised in Table 4.25 below.

Table 4.25: Safe Keeping of Procurement and Contract Management Records

Category	Frequency	Per cent
Strongly disagree	1	0.4
Disagree	5	2.0
Neutral	8	3.2
Agree	156	63.2
Strongly agree	77	31.2
Total	247	100

The findings above indicate that 94.4% of the respondents were of the opinion that procurement records and documents are safely kept in the procurement departments as required by the law. From the Tanzanian public procurement practices, the above results somehow, present a mixed interpretations and feelings. While these results are in agreement with the findings by Mwenyasi (2011) who found proper record keeping at VETA Eastern Zone, they on the other hand, contradict with the findings by Mkalimoto (2011) whose study revealed poor record keeping at Iringa Regional Secretariat (RAS) whereby records for most procurement activities were not maintained and kept in a safe custody. Problems relating to improper record keeping were also cited in the second CPAR by the PPRA (2007) and in the CAG’s report (2013/2914 FY).

4.7.2 Staffing in the Procurement Department

Establishment and composition of the Procurement Management Units (departments) requires that the procurement department be staffed to an appropriate level consisting of procurement and other technical specialists together with necessary supporting staff

[sec.37 (1) & (2), PPA 2011]. In this regard, the study intended to establish the adequacy of the existing staff working in the procurement department. To achieve this, respondents were required to give their opinions on the staffing of the department. The responses were as shown in Table 4.26 below.

Table 4.26: Existence of Qualified Personnel in the Procurement Departments

Category	Frequency	Per cent
Strongly disagree	3	1.2
Disagree	41	16.6
Neutral	29	11.7
Agree	117	47.4
Strongly agree	57	23.1
Total	247	100

According to the responses above, 70.5 % of the respondents were of the opinion that the procurement departments in their entities were adequately staffed with qualified professionals. However, these results contradict with the findings by Garigo (2011) who assessed the implementation and compliance with the PPA and its attendant regulations at the Office of the National Assembly (Bunge), Dodoma and found that the PMU was understaffed and consisted of procurement experts only.

4.7.3 Competence of officials involved in procurement activities

Studies in public procurement indicate that performance in most public entities has been poor due to incompetent procurement staff (Odhiambo & Kamau, 2003; Agbesi, 2009, Raymond, 2008). As a result, the established procurement regulations, rules and procedures are not consistently applied. Procurement staff and all those involved in the procurement process therefore, are required to be familiar with the procurement rules

and regulations, and that is the competence expected from them. In this sub variable therefore, the study sought to establish whether officials involved in the procurement activities are competent to perform their procurement related responsibilities.

Table 4.27: Competence of Officials Responsible for Procurement Activities

Category	Frequency	Per cent
Strongly disagree	2	.8
Disagree	13	5.3
Neutral	26	10.5
Agree	139	56.3
Strongly agree	67	27.1
Total	247	100

The responses as displayed in Table 4.27 above indicate that 83.4% of the respondents admit that officials involved in procurement activities in their respective entities are competent meaning that they are familiar regulations, rules and procedures guiding the procurement processes and decisions. These results are in agreement of the findings in the studies conducted by Kechibi (2012); Kiage (2013); Kioko and Were (2014) which established that staff competencies greatly affect the efficiency of the procurement function in public institutions.

Familiarity with procurement regulations, rules and procedures have also been discussed by Geladerman *et al.* (2006); Eyaa and Oluka (2011) and Eyitope *et al.* (2014) in their different studies on ‘Non-compliance with procurement proceedings’. The findings in the above studies indicate consensus that familiarity with procurement regulations is a significant predictor of compliance with procurement regulations in the public entities. A managerial implication of their study is that educating and training public procurement staff will be an effective tool for increasing the compliance with the directives.

4.7.4 Independence of Functions and Powers

In the course of executing their duties, the PPA requires all key players in the procurement process at the entity level namely, the accounting officer, the tender board, the Procurement Management Unit, the user department and the Evaluation Committee to act independently in relation to their respective functions and powers. This provision of the law seeks to prevent and avoid the possible interference and influence in the procurement processes and decisions.

In establishing whether such independence exists in the procuring entities, respondents were asked to indicate the extent to which they agree or disagree on a statement relating to independence of functions and powers of the officials involved in the procurement process in their respective entities.

As shown in Table 4.28 below, 80.5% of the respondents were of the opinion that officials involved in procurement activities in their respective entities perform their respective duties independently. These results further suggest that the procurement activities in the procuring entities in Tanzania are conducted in a professional manner with little or no room for interference and influence. Nevertheless, the findings are in disagreement with those in the study conducted by Eyitope *et al.* (2014). The study assessed areas or stages and reasons for non-compliance in the procurement proceedings of procurement of works in Nigeria. The key results of the study indicated that institutional and political reasons are the major reasons for non-compliance with the procurement proceedings in procurement of works in Nigeria.

Table 4.28: Independency of Officials Involved in the Procurement Process and Decisions

Category	Frequency	Per cent
Strongly disagree	5	2.0
Disagree	21	8.5
Neutral	22	9.0
Agree	120	48.5
Strongly agree	79	32.0
Total	247	100

4.7.5 Professional Code of Ethics and Conduct

According to Raymond (2008), professionalism in public procurement does not relate to the levels of education and qualifications of the staff only, but also to the professional in the conduct procurement activities. On the other hand, a professional is characterised and known by having a professional organisation, a body of knowledge and a Code of Conduct and Ethics (Robert & Clifford, 2004). The Procurement and Supplies Professionals and Technicians Board (PSPTB) is a professional body in Tanzania established under Act No. 23 of 2007. The main thrust of the establishing Act is to make better provisions for regulating practices and conduct of Procurement and Supplies Professionals. Subsequent to the Act, the Board has developed and disseminated a Professional Code of Ethics and Conduct through Government Notice No. 365 of 2009. The Code which applies to all registered Procurement and Supplies professionals requires all professionals to carry out all appropriately assigned duties diligently, efficiently, equitably, honestly, trustfully and with transparency.

In view of the foregoing, the study sought to establish whether the Professional Code of Conduct and ethics do exist and that staff in the procurement department comply with the existing Code. Respondents were required to indicate their opinions on compliance with the professional code and their responses were as summarised in Table 4.29 hereunder.

Table 4.29: Compliance with the Tanzanian Procurement Professionals’ Code of Ethics

Category	Frequency	Per cent
Strongly disagree	3	1.2
Disagree	5	2.0
Neutral	19	7.7
Agree	136	55.1
Strongly agree	84	34.0
Total	247	100

The results above indicate that 89.1% of the respondents were of the opinion that procurement staffs in their respective entities were complying with the Procurement and Supplies Professionals and Technicians Code of Ethics and Conduct. Cumulatively, all elements of professionalism assessed in this study yield positive responses. With these results, the study fairly ascertains that most of the procuring entities are staffed with procurement professionals, trained and recognised by the Procurement and Supplies Professionals and Technicians Board. These findings are in tandem with those by Amayi and Ngugi (2013) who conducted a study on “Determinants of Public Procurement Performance in Kenya. The study found that professional ethics (professionalism) strongly correlates with the performance of procurement in public entities in Kenya. Furthermore, a study by Eyaa and Oluka (2011), established that procurement

professionalism is one of the significant predictors of compliance with procurement regulations in the central government entities in Uganda.

The implication of the above findings is that, if the procurement process is managed by well trained and professionally qualified personnel, then the levels of familiarity with regulations, rules and procedures will be high with associated compliance with codes of conduct and ethics, all leading to sound procurement practices and increased organisational performance.

Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores for the five indicators were extracted from the above analysis on Procurement Professionalism variable and the same were then used to compute the total scores for the variables used for the inferential analysis. Table 4.30 presents the factor scores for the Procurement Professionalism.

Table 4.30: Factor Scores for Procurement Professionalism

Indicators	Factor Scores
Safe keeping of Records and Documents	.802
Staffing in the Procurement Department	.747
Competence of Officials involved in the Procurement Process	.728
Independence of Functions and Powers	.644
Professional Code of ethics and Conduct	.571

4.8 The Effect of Participation of Private Sector on Performance of Procurement Departments

The third objective of this study was to establish the extent to which the private sector organisations participate in the available procurement opportunities offered by the public

entities. The researcher's interest on private sector participation stems from the following two points. Firstly, it is in recognition that a private sector is an engine of economic development and therefore a key partner to the well-functioning of any public procurement system. Secondly, the PPA 2011 and its regulations have provisions for procurement under public private partnership (PPP). The study thus intended to ascertain the degree of participation by the private sector specifically focusing on accessibility to the opportunities, the existing PPP arrangements (if any), and percentage of procurement contracts awarded to the private organisations. Finally, the existing relationships with the suppliers / service providers /contractors were assessed.

For each indicator of the independent variable, descriptive analysis involved computation of the measures of central tendency. The results were then presented in tables and graphs. Factor scores for the indicators were computed and total scores for the variables were subsequently used for the inferential analysis.

4.8.1 Access to Procurement Opportunities

Section 47 of the PPA 2011 requires all procuring entities in the execution of their procurement related duties, to achieve the highest standard of equity specifically by considering equality of opportunity to all bidders and fairness of treatment to all parties. The study therefore intended to ascertain whether equality and fairness do exist in particular, among bidders from the private sector organisations. Respondents were required to give their opinions on the extent to which they agree or disagree on a statement relating to accessibility by the private sector to procurement opportunities offered by public entities.

Table 4.31 below presents the results based on respondents opinions. According to the presented results, 88.3% of the respondents were of the opinion that private sector organisations are free to access the procurement opportunities offered by their respective entities. These findings were also supported by views given by internal auditors during

the face to face interviews. According to the interviewed respondents, the private sector has a free access to procurement opportunities through the open tender advertisements issued by the Government Procurement Services Agency (GPSA).

Table 4.31: Private Sector’s Access to Public Procurement Opportunities

Category	Frequency	Per cent
Strongly disagree	1	0.4
Disagree	7	2.8
Neutral	21	8.5
Agree	111	45.0
Strongly agree	107	43.3
Total	247	100

4.8.2 The Extent of Private Sector Participation

Accessibility to opportunities is one thing, but the level of actual participation is another and very different thing. The study sought to establish whether the private sector organisations actually participate in the available procurement opportunities offered by the public sector. Here respondents were asked to indicate the extent to which they agree or disagree on whether the private sector organisations actively participate in the procurement opportunities by their respective entities. The presented results in Table 4.30 below indicate that 68 % of the respondents agreed that the private sector actively participate in procurement opportunities offered by the public sector.

The relatively low score (68%) recorded in this sub variable, is further supported by the findings revealed in previous studies conducted by Mkalimoto (2011); Kalugendo (2011) and Kechibi (2012) which indicated that late payment to suppliers, service providers and contractors is the main factor discouraging and thus limiting the private

sector organisations from participating in the procurement opportunities offered by the public sector.

Table 4.32: Extent of Participation by the Private Sector

Category	Frequency	Per cent
Strongly disagree	4	1.6
Disagree	17	6.9
Neutral	58	23.5
Agree	124	50.2
Strongly agree	44	17.8
Total	247	100

4.8.3 Existence of Public Private Partnership (PPP) Arrangements

One of the methods used to encourage the private sector participation is through the public–private partnerships (PPP) arrangements in which the private sector entities perform a public function on behalf of the public/ government. The PPP arrangements involves the transfer of various forms of project risks from public to private sector – and therefore is considered by governments in many countries worldwide as one way of reducing their direct expenditures.

In this sub variable the study intended to establish the existence of PPP arrangements as one of the emerging evidences of the private sector participation in public procurement opportunities.

Respondents were required to indicate the extent to which they agree or disagree on a statement relating to the partnership between their entities and the private sector through the PPP arrangements. The results were as presented in Table 4.33 below.

Table 4.33: Existence of Public Private Partnerships (PPPs)

Category	Frequency	Per cent
Strongly disagree	3	1.2
Disagree	31	12.6
Neutral	72	29.1
Agree	107	43.3
Strongly agree	34	13.8
Total	247	100

The findings as presented above indicate that 57.1% of the respondents confirmed that some projects in their respective entities were executed through well-established partnership arrangements with private sector organisations. The low level of PPP arrangements was concurred by majority of interview respondents who argued that the PPP arrangement is still a new concept in Tanzania from the public procurement point of view. According to the respondents, most of the PPP arrangements in the public sector are conducted in accordance with the Public Private Partnership Act, 2010 – with little or no reference to the Public Procurement Act. Hence the procurement department is in most cases side-lined when it comes to managing the process and contracting under PPP arrangements.

4.8.4 Mandatory Procurement from Government Agencies

While encouraging the private sector to participate in the public procurement opportunities, on the other hand, the PPA 2011 and its subsequent regulations 2013, requires all procuring entities to procure common use items and services from the Government Procurement and Services Agency (GPSA) through a Framework Agreement procedure. The framework agreements are intended to achieve efficiency in the procurement process and reduction in the transaction costs. Furthermore, regulations 130 -138 provide for and detail the procedures for procurement of Sector Specific goods and services. The sector specific goods and services to be procured from government agencies/ departments include the following

- a) procurement of motor vehicles, heavy plant, equipment and spare parts,
- b) procurement of electrical, mechanical and electronic services
- c) Procurement of information and communication technology equipment and tools
- d) Procurement of medicines and medical supplies.

The study sought to establish the extent to which the procuring entities adhere to these provisions which to some extent seem to limit competition and /or discourage the private sector's participation. Respondents were required to indicate the extent to which they agree or disagree on the statement relating to procurement of specific goods and services. The results based on the respondents' views as shown in Table 4.34 below indicate that 73.3 % of the respondents agree that there are specific goods and service that their entities procure from government agencies or departments as required by the procurement legislation. Impliedly these findings suggest that mandatory procurement from government agencies has limited competition and thus limiting the privates sector's participation as evidenced by the results of the previous two sub variables which indicated low level of private sector participation and PPP arrangements.

Table 4.34: Procurement of Specific Goods and Services from Agencies

Category	Frequency	Per cent
Strongly disagree	3	1.2
Disagree	19	7.7
Neutral	44	17.8
Agree	115	46.6
Strongly agree	66	26.7
Total	247	100

4.8.5 Major Contracts awarded to Private organisations

Major contracts simply means engaging a firm, company organisation, partnership in civil, electrical or mechanical engineering or in construction or buildings works which cost a huge amount of money. If the private sector is engaged in major contracts, confidence will be created in the competence and treatment of the public sector entities. As a result, this will attract and encourage more participation from the private sector organisations.

In this sub variable the study intended to ascertain whether there are major contracts awarded to the private sector organisations. By indicating the extent to which they agree or disagree, respondents were given a statement relating to major procurement contracts awarded to the private sector organisations. The responses were as summarised in Table 4.35 below:

Table 4.35: Major Contracts Awarded to the Private Sector Firms

Category	Frequency	Per cent
Strongly disagree	6	2.4
Disagree	7	2.8
Neutral	27	10.9
Agree	109	44.1
Strongly agree	98	39.8
Total	247	100

As indicated in table above, 83.9 % of the respondents confirmed that major procurement contracts in their respective entities have been awarded to private sector organisations. These results compares well with the views from the interview respondents (working with Urban Water Supply Authorities) who revealed that almost 80% of the procurement contracts are awarded to the private sector organisations mainly for the supply of chemicals and water pipes and tanks.

Despite the presented low score in existence of the public- private partnership arrangements (57.1.% as indicated in table 4.33 above), the other four elements of this variable have demonstrated that there is high participation by the private sector organisations in most of the procurement opportunities offered by the public entities. These findings are in agreement with assertions by the OECD (2010) that public procurement requires performance of both public sector as well as private sector. Exceptions have however been noted in the procurement of sector specific goods and services in which it is made mandatory for the procuring entities to procure from specified government agencies/departments. This provision of the law has to some extent limited the scope and level of participation by the private sector.

Table 4.36 below presents the results of the factor scores for the private sector participation. Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores for the indicators were extracted from the analysis then used to compute the total scores for the variables used for the inferential analysis.

Table 4.36: Factor Score for Participation of the Private Sector

Indicators	Factor Scores
Access to Procurement Opportunities	.751
Extent of Participation by the Private Sector Organisations	.707
Existence of Public – Private Partnership (PPP) Arrangements	.633
Procurement of Specific Goods and Service Agencies	.567
Major Contracts awarded to Private Sector Organisations	.551

4.9 The Effect of Transparency in the Procurement Process on Performance of Procurement Department

The fourth objective of this study was to determine the effect of transparency in the procurement process on performance of procurement departments in public entities. As it was the case with previous variables, descriptive analysis that involved the measures of central tendency for each indicator was used and presented in tables and graphs. Subsequently factor scores for the indicators were computed and total scores for the variables used for the inferential analysis.

Transparency in the public procurement is reflected in different activities, such as but not limited to, publication of procurement opportunities through the general procurement notices and invitations to tenders, publication of annual procurement plans and publication of contracts awards and prices paid. The study thus, sought to establish the

extent to which information relating to procurement activities are availed and accessed by key stakeholders in the procurement process and decisions. Specifically the study focused on publication of information, existence of internal and external audits, ability of stakeholders to access the information, facilitation provided to auditors and management follow ups and actions.

4.9.1 Publication of Information

Transparency in the public procurement is about information, hence procuring entities must avail to its stakeholders all information relating to process, decisions and management of procurement contracts. Regulations 10 (1) – (3) require all information relating to particular procurement made available to the general public through publication. In this indicator the study intended to ascertain as to whether information relating to procurement transactions are published and accessed by interested parties. Respondents were required to indicate the extent to which they agree or disagree on a statement on publication of information relating to procurement process in their respective entities. The results indicate that 86.6 % of the respondents confirmed that information relating to procurement process in their respective entities is published through the available media. The results are in agreement with interview respondents most of whom admitted that procurement opportunities are advertised through the GPSA and PPRA websites and newspapers, all contracts awarded are communicated to the Authority (PPRA), intention to award are communicated to all participating bidders and that copies of contracts are sent to the Attorney General as required by the law. Table 4.37 below presents the complete results.

Table 4.37: Publication of Information

Category	Frequency	Per cent
Strongly disagree	1	.4
Disagree	13	5.3
Neutral	19	7.7
Agree	103	41.7
Strongly agree	111	44.9
Total	247	100

4.9.2 Existence of Procurement Audits

There is a general consensus that effectiveness of transparency in public procurement can be strengthened by empowering the monitoring and oversight organisations within civil society to scrutinize the procurement function. In public procurement monitoring is usually done through the audit exercises. Procurement audit is an independent review and systematic examination of the procurement records with a view to verifying whether procurement and contracting processes are followed.

In Tanzania, the PPRA as an oversight body plays an enforcement role to ensure that procurement activities of the procuring entities are periodically reviewed and monitored. One of the functions of the PPRA is to institute procurement, contract and performance audits as clearly stipulated in sect. 9 [(1) (i) (i-iii)] of the PPA 2011. The study sought to establish whether procurement activities in the surveyed entities are subject to internal and external audits. The results based on the responses from the valid respondents are as shown in Table 4.38 hereunder.

Table 4.38: Existence of Procurement Audits

Category	Frequency	Per cent
Strongly disagree	2	.8
Disagree	2	.8
Neutral	3	1.2
Agree	115	46.6
Strongly agree	125	50.6
Total	247	100

The above results indicate that 97.2 % of the respondents agree that procurement activities in their respective entities are subject of internal and external audits. The findings were also confirmed by interview respondents who revealed that procurement activities are audited on quarterly basis by the Internal Auditors and on annually basis by the PPRA. According to the PPRA (2013) procurement audits is the method used to assess the performance of procuring entities by applying selected indicators within the procurement cycle. The above results and discussion are in concurrence with the findings in the study conducted by Kakwezi and Nyeko (2010) which indicated that procurement audit is the most important measure of procurement performance.

4.9.3 Ability of Stakeholders to Access Information

In this indicator the study sought to establish whether any interested stakeholder is able to know the process by which the procurement process and contracts are conducted and awarded respectively. According to UNDP (2010), access to procurement information by civil society, the media and other stakeholders, and the ways in which these parties can use the information, directly affects accountability. Table 4.39 below presents the results based on views of the respondents.

Table 4.39: Transparency in the Contract Awarding Process

Category	Frequency	Per cent
Disagree	12	4.9
Neutral	26	10.5
Agree	127	51.4
Strongly agree	82	33.2
Total	247	100

The above results indicate that 84.6% of the respondents assert that any interested stakeholder is able to know the process by which procurement contracts are awarded. These findings are in agreement with the observations made by Kaspar and Puddeffat (2012) who argued that transparency can improve access to public procurement opportunities through disclosure, publication and dissemination of information on available tenders.

4.9.4 Information Provided to Auditors

Procurement audit in Kenya is defined as an independent review and systematic examination of the procurement and disposal records with a view to verifying whether procurement and contracting processes are followed and to recommend measures to address any compliance gaps identified and hence improve compliance (Moti, 2015). From this definition it obvious that auditors need to be availed with all of the required documents and information necessary to carry out their auditing tasks effectively and efficiently.

In this indicator therefore, the study intended to establish whether auditors are provided with all of the necessary information relating to the procurement procedure. Respondents were required to give their opinions on the same by indicating the extent to

which they agree or disagree. The results as shown in Table 4.40 below indicate that 91.1% .of the valid respondents agreed that procurement auditors are provided with all the necessary information relating to procurement procedures.

Table 4.40: Information Provided to Auditors

Category	Frequency	Per cent
Strongly disagree	2	.8
Disagree	6	2.4
Neutral	14	5.7
Agree	111	44.9
Strongly agree	114	46.2
Total	247	100

According to interview respondents, the existing law (PPA 2011) provides for more stringent sentences to those in breach of the law including failure or refusal to give information, produce document, records or report required under the procurement law. In attempt to avoid committing such offences, all information is provided as and when required by auditors. With the above results in mind, one can fairly argue that procurement auditors are availed with all of the information necessary to carry out independent and unbiased auditing procedures. This may further suggest that the auditing reports portray a fair and true picture on performance of the respective and audited procuring entities.

4.9.5 Management follow -ups and Actions

According to Moti (2015) one of the main purposes of procurement audit is recommend measures to address any compliance gaps identified and hence improve compliance. For this objective to be achieved, there should be a deliberate management follow ups and

actions emanating from the recommendations made by the auditors. The study therefore sought to establish whether procuring entities make follow ups and take any corrective actions based on the auditors findings and recommendations.

Respondents were required to indicate the extent to which they agree or disagree on the existence of management follow ups and actions on procurement auditors’ findings and recommendations. The results as presented in Table 4.41 below indicate that 91.5% of the respondents confirmed that their respective managements make follow ups and take appropriate actions based on the auditors’ recommendations. Interview respondents revealed that it is mandatory for the management to submit a quarterly report to the Budget Approving Authority of the entity, and that one of the submissions is the auditors report – findings, recommendations and the management responses (actions).

Table 4.41: Management Follow ups and Actions on Procurement Auditors’ Findings

Category	Frequency	Per cent
Strongly disagree	3	1.2
Disagree	3	1.2
Neutral	15	6.1
Agree	118	47.8
Strongly agree	108	43.7
Total	247	100

All of the five indicators in this variable produced very positive responses indicating their relevance and applicability in relation to the chosen variable. The findings further suggest that procurement process in most of the public entities is transparent. In other words the findings imply that the same rules are applied to all bidders and that such rules

are publicised as the basis for procurement decisions prior to their actual use. However, these findings contradict with previous studies by Chene, (2009) and Agbesi (2009) which indicated that there is general lack of transparency processes in several procuring entities in Kenya and Ghana respectively and that implementation of the procurement laws and regulations is being hindered by poor information dissemination. Moreover, inadequate advertising opportunities and lack of clear selection criteria have also been cited in the Country Procurement Assessment conducted in Indonesia (2007), Mongolia (2007) and Tanzania (2007). All these suggest that several factors affecting the performance of procurement in the public entities are related to lack of transparency in the procurement process.

The following Table 4.42 presents the results of the factor scores for the variable (transparency in the procurement process). Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores for the indicators were extracted from the analysis then used to compute the total scores for the variables used for the inferential analysis.

Table 4.42: Factor Scores for Transparency in the Procurement Process

Indicators	Factor Scores
Publication of Information	.773
Existence of Procurement Audits	.772
Ability of Stakeholders to access information	.727
Information Provided to Auditors	.717
Management Follow-ups and Actions	.669

4.10 The Effect of Integrity in the Procurement Process on Performance of Procurement Departments

The fifth and last objective of this study was to determine the effect of integrity in the procurement process on performance of procurement functions in the public entities. The study adopted descriptive analysis that involved the measures of central tendency for each indicator and presented in tables and graphs. Factor scores for the indicators were subsequently computed and total scores for the variables used for the inferential analysis. Integrity is at the core of ethical behaviour. Integrity in public procurement means public resources linked to public procurement are used in accordance with the intended purposes (OECD, 2007). Maintaining integrity in public procurement is therefore necessary to prevent fraud, corruption and other unethical practices as procurement and supply chain functions are vulnerable to unethical behaviours which not only increase costs but also damage the reputation of the public entity Namusonge (2011).

The study therefore intended to establish whether public entities adhere to and maintain institutional integrity in conducting procurement processes focusing on legal provisions addressing unethical behaviour, measures adopted to prevent fraud or corruption, secure mechanisms for whistle blowers, existence of codes of ethics and conduct and actions taken against law defaulters.

4.10.1 Provisions Addressing Unethical Behaviour

In this indicator the study sought to establish whether there are provisions in the existing procurement legal and regulatory framework addressing unethical behaviours. Specifically the researcher was interested to see whether respondents are aware of the existence of such provisions which form a basis of their expected compliance. Respondents were required to indicate the extent to which they agree or disagree on the

existence of provisions addressing unethical behaviour (corruption, fraud and conflict of interest) in the existing procurement legal and regulatory framework.

Table 4.43 below presents the results which indicate that 90.3% of the respondents admitted that there are provisions in the existing procurement legislation addressing unethical behaviours. Furthermore, these results are in conformity with section 83(6) of the PPA 2011 which requires all procuring entities in any public tender to include an undertaking of the bidder to observe the country's laws against fraud and corruption in completing for and executing a contract. Impliedly, these findings may further suggest that procurement proceedings and contracts in the public entities are conducted in a transparent and accountable manner.

Table 4.43: Existence of a Provision Addressing Unethical Behaviour

Category	Frequency	Per cent
Strongly disagree	5	2.0
Disagree	5	2.0
Neutral	14	5.7
Agree	118	47.8
Strongly agree	105	42.5
Total	247	100

4.10.2 Existence of Measures Preventing Fraud and Corruption.

In addition to the provisions in the existing law, the procuring entities should also devise their own anti- corruption measures and strategies. In this indicator therefore, the study sought to establish whether there are measures adopted by procuring entities to prevent fraud and corruption in the procurement process. Respondents were asked to

indicate the extent to which they agree or disagree on a statement relating to existence of measures used to prevent fraud and corruption in their respective entities. The results indicate that 74.1% of the respondents confirmed that there are specific measures used to prevent and detect fraud and corruption in the procurement process in their respective entities. These results were supported by interview respondents who revealed the existence of Fraud Policy and Risk Management Policy/ Framework as the most effective measures used to prevent and detect unethical practices in the public entities. These policies contain red flags on corrupt and unethical behaviour and cuts across all sections within the entity. In addition to these policies, in some entities posters reading ‘This is a Corruption Free Zone’ are widely used as an anti corruption measure.

Table 4.44: Existence of Measures to Detect Fraud and Corruption

Category	Frequency	Per cent
Strongly disagree	8	3.2
Disagree	10	4.1
Neutral	46	18.6
Agree	128	51.8
Strongly agree	55	22.3
Total	247	100

4.10.3 Secure Mechanism for Whistle Blowers

One of the challenges in maintaining integrity in public procurement is how people providing information relating to corrupt behaviour and unethical practices are safeguarded. People may have information, but hesitate to release if not guaranteed on their security. In this indicator, the study intended to establish whether those providing information on unethical practices, popularly known as whistle blowers are safeguarded

or not. Respondents were required to indicate the extent to which they agree or disagree on a statement relating to existence of secure mechanism for those who have information and wish to report on any unethical behaviour in the procurement process. The results as presented in Table 4.45 below, indicates that 63.6% of the respondents were of the opinion that there are secure mechanisms in place for whistle blowers, whereas 24.3% of the respondents were neutral to this statement. One of the interview respondents argued that currently the Internal Audit Office handles all issues related to fraud and corrupt practices. The Internal Audit reports indicate incidents that are vulnerable to corrupt practices for the management’s actions – and this acts as a whistle blowing as well.

Table 4.45: Secure Mechanisms for Whistle Blowers

Category	Frequency	Per cent
Strongly disagree	8	3.2
Disagree	22	8.9
Neutral	60	24.3
Agree	121	49.0
Strongly agree	36	14.6
Total	247	100

4.10.4 Existence of Codes of Conduct

The PPA 2011 requires all officials involved in the procurement decision making to sign a declaration of compliance with Codes of Conduct as determined by the PPRA. In particular, members of the Evaluation Committees and Tender Boards are required to sign a Covenant indicating their trustfulness and accountability for any outcome of the decisions they will make. In this indicator, the study wanted to ascertain whether there

are Codes of Conduct and Ethics for those involved in procurement decisions. Respondents were required to indicate the extent to which they agree or disagree on a statement relating to Codes of Conduct and Ethics in the procurement decision making process in their respective entities. As shown in Table 4.46, 87.9% of the respondents indicated that there are Codes of Ethics and Conduct for those involved in the procurement decision making process in their respective entities. The results were further supported by interview respondents, who revealed that signing of Ant- Bribery Covenant is mandatory for those involved in decision making particularly members of the tender evaluation committees. In the absence of the properly signed covenants, the evaluation report is rejected outright by the PMU regardless of the quality and urgency of the concerned report.

Table 4.46: Existence of Code of Ethics and Conduct

Category	Frequency	Per cent
Strongly disagree	2	0.8
Disagree	9	3.6
Neutral	19	7.7
Agree	136	55.1
Strongly agree	81	32.8
Total	247	100

The codes require all those involved in the procurement proceedings to adhere to the standards and restrictions imposed by the procurement law, rules and regulations. With the presence of such codes, it is expected that those involved in the procurement process and decisions shall faithfully carry out all assigned duties striving at all times to perform the work diligently, efficiently, equitably, thoroughly, honestly, trustfully and with transparency.

4.10.5 Actions Taken Against Law Defaulters

As an enforcement of the law, the section 104 of the PPA 2011, provides stringent sentences to those in breach of the law. In particular the penalties are for those persons who knowingly gives false or misleading information or evidence in purported compliance with a summon issued under the law; and /or those persons who without reasonable excuse fails or refuses to give information, or produce any document, records or reports required by PPRA or PPAA.

In view of the above provisions, in this indicator, the study intended to establish on whether the procuring entities take any legal or disciplinary actions their staff who are convicted of contravening the procurement law, rules and regulations. Respondents were required to indicate the extent to which they agree or disagree on a statement relating to actions taken against those who have violated the procurement law and regulations in their respective entities. Table 4.47 below presents the results based on opinions of the valid respondents.

Table 4.47: Evidence of Legal and Disciplinary Actions Taken

Category	Frequency	Per cent
Strongly disagree	16	6.5
Disagree	38	15.4
Neutral	67	27.1
Agree	92	37.2
Strongly agree	34	13.8
Total	247	100

The above results indicate that 51% of the respondents agreed that there are evidences of legal or disciplinary actions taken against those staff who have violated the procurement

law and regulations in their entities, whereas 20.4% disagreed and 27.1% were not sure (neutral). The results may suggest the low level of enforcement of procurement law and regulations within the public entities. Having a law is one thing, implementing the law is another and very different thing, but failing to enforce the established law is more detrimental than having no law at all.

The issue of non-enforcement of the law has been singled out as one of the major weaknesses in the Tanzanian public procurement system (CPAR, 2007; CAG, 2014). Nevertheless, section 33(2) of the PPA 2011, establishes the Budget Approving Authority in every entity responsible for, inter alia, ensuring that the entities comply with the provisions of procurement law and its attendant regulations. Specifically, the law gives mandate to the budget approving authority to discipline any staff implicated of wrongdoings in relation to procurement activities. It is now the onus of the budget approving authorities to see to it that this provision of the law is enforced.

Overall, the five indicators in this variable have achieved above 50% response suggesting consistency and relevancy to the variable under consideration. The implications here is that public procurement in Tanzania is conducted in a manner guaranteeing that public expenditures are made in the most economically and rational way. However, various studies (Hytinen *et al.*, 2006; National Governance & Corruption Survey, 2009; Mwenyasi, 2011; Kalubanga *et al.*, 2013), suggest to the contrary. In these studies and others there is a consensus that corruption and fraud still is a major challenge in managing public procurement across the world but more seriously in the developing countries and that if not arrested both corruption and fraud can significantly impact on procurement performance.

The following Table 4.48 presents the results of the factor scores for the variable (integrity in the procurement process). Factor analysis was done to determine the total scores for the variable that was used for further analysis. Factor scores for the indicators

were extracted from the analysis then used to compute the total scores for the variables used for the inferential analysis.

Table 4.48: Factor Scores for Integrity in the Procurement Process

Indicators	Factor Scores
Provisions Addressing Unethical Behaviours	.830
Existence of Measures Preventing Fraud and Corruption	.767
Secure Mechanisms for Whistle Blowers	.656
Existence of Codes of Conduct and Ethics	.601
Actions Taken Against Law Defaulters	.555

4.11 Regression Analysis for Measuring Performance of the Procurement Department

The general objective of this study was to determine factors influencing the procurement function in public entities in Tanzania. In assessing the determinants, five independent variables were measured using a 5 -point Likert scale. Furthermore, each of the five predictors (independent variables) consisted of five attributes or sub variables. The regression analysis was carried out with a view to determining a statistical relationship between the predictors and the dependent variable. Since there were five independent variables and within each five attributes, factor analysis was used to extract factors for Multiple Linear Regression analysis.

However, based on the reviewed literature on definitions and performance measurement of the procurement function, the researcher’s interest was to carry out Two Regression Models, one based on the level of Compliance with procurement rules and procedures and the other one based on the level of Achievement of procurement Objectives in terms of Time, Quality and Cost of the procured goods, works and services. The purpose of carrying the two regression models is to compare the results between the two with a

view of making sound conclusions on how best the public procurement can be defined and its performance measured. Results of the analysis concerning the two multiple linear regression models are presented in the subsequent sections.

4.11.1 Regression Output Based on the Level of Compliance with Rules and Procedures

a) Model Summary

The following table presents the model summary which essentially indicates the relationship between the independent variables and the dependent variable.

Table 4.49: Model summary of variable relationship

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.303	.092	.065	.747

From the above findings, the correlation coefficient (R) which measures a relationship between the predictors (independents) and the response variable (dependent) is 0.030 or 30% which indicates a weak relationship between the two. On the other hand, the coefficient of variation (R- squared) is 0.092 which implies that only 9 per cent of the variations on the score obtained by the procurement entities are due to the chosen explanatory variables. This implies also that 91 per cent of the variation in score is accounted by factors other than the ones used in this model. The R- squared or popularly known as the coefficient of variation is an overall measure of the strength of association but it does not reflect the extent to which each independent variable is associated with the response variable. This may come out clearly in the immediate regression results hereunder.

Although statistically, the above results attract an alarming question as to whether the variables used were the true representation or not, but on the other hand, one can fairly argue that the presented results are unsurprising. As stated in chapter one, the independent variables for this study were derived from the MAPS indicators developed by the OECD-DAC. These baseline indicators or pillars are used in assessing the performance of the country's procurement system at the national level. The researcher's interest was to adopt the same indicators by cascading them from the national level to the entity (departmental) level and see what results they might produce. Moreover, this is the first empirical study which adopted the OECD-DAC Baseline indicators in assessing the procurement performance at the lower (departmental) level. Previous studies on procurement performance Kakwezi and Nyeko (2010); Amayi and Ngugi (2013); Kiage (2013); Kioko and Were (2014); Ngeno, Namusonge and Nteere (2014); Wahu, Namusonge, Mungai and Chillioni (2015); Marendi (2015) and others used different variables in determining performance of the procurement function other than the Baseline indicators as used in this study.

b) Analysis of Variance

An Analysis of Variance (ANOVA) was carried out as seen from Table 4.50 below. The interest in ANOVA table is on the F- statistics and its associated p- value. While the F- statistical test shows the overall significance of the model, the p-value gives an indication on whether the model is significant or insignificant. From the ANOVA table, the overall regression model is a good fit for the data; $F(5, 95) = 3.450$, $p < 0.05$. This is also called a "goodness- of - fit test. To this effect we may conclude that the regression model fits the data and that the predictors had effect on performance of the procurement function.

Table 4.50: ANOVA for Performance of the Procurement Department

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.626	5	1.925	3.450	.005 ^b
Residual	95.436	171	.558		
Total	105.062	176			

a. Dependent Variable: P3.1: Score obtained during the last Procurement Audit by the PPRA

c) Parameter Estimates

Regression analysis gives the value of the regression equation for predicting dependent variable from the independent variables. The estimated coefficients indicate how much the “Scores” varies due to variation of any independent variable while holding other independent variables (predictors) constant. The regression output is presented in the following table of parameter estimates.

Table 4.51: Estimated Regression Results

Model	Unstandardized Coefficients		Standardised Coefficients	T	Sig.
	β	Std. Error	Beta		
(Constant)	2.630	.545		4.822	.000
Legal and Regulatory Framework	.471	.179	.302	2.634	.009
Procurement Professionalism	-.013	.162	-.009	-.082	.935
Private Sector Participation	-.405	.158	-.270	-2.567	.011
Integrity in the Procurement Process	.020	.128	.015	.157	.875

a. Dependent Variable: P3.1: Score obtained during the last Procurement Audit by the PPRA

Here we find other interesting results. Changes on only two out of the five predictors influence the scores obtained by the procuring entities and hence performance. Legal and regulatory framework and private sector participation are the two factors influencing the performance of the public entities measured in terms of scores obtained during the procurement audit conducted by the Regulatory Authority (an oversight body). According to the table above, legal and regulatory framework has the greatest contribution on performance of the procurement department.

For example; the coefficient for “legal and regulatory framework” is 0.471 and the t-test value is 2.634 and this coefficient is significant ($p\text{-value} = 0.009 < 0.05$). The intuition we are getting from this single result of the coefficient is that, the “scores” of the procurement unit increases by 47% when there is an optimal compliance with rules and regulations, while holding other variables unvaried/constant. It can also be explained in simple terms that ‘the higher the compliance level, the higher the scores obtained and vice versa.

Likewise, from the same results, the variable “legal and regulatory framework” is significant ($t = 2.634$, $p\text{-value} = 0.009$), indicating that there is a linear relationship between the score the department obtains and the way they comply with rules and regulations. The opposite is likely to be true, that is, if the department does not comply with rules and regulations, the chance is that it will score low. This kind of positive relationship implies that public entities should strive to comply fully with the procurement legal and regulatory framework so as to obtain higher scores and consequently enhance their performance levels.

The above results are in agreement with previous studies conducted by Eyaa and Oluka (2011), Gelderman *et al.* (2006) and Eyitope *et al.* (2014) in which there is a consensus that performance of the procurement function significantly correlates with the level of compliance with the procurement law and rules.

From the above table, the coefficient for “private sector participation” is - 0.405 and the t-test value is -2.567 and this coefficient is significant ($p\text{-value} = 0.011 < 0.05$). However, the negative sign of the coefficient implies that the ‘scores’ of the procurement department decreases by 40% where the private sector participates more in the procurement opportunities offered by the public entities. The coefficients for other variables, namely procurement professionalism and integrity in the procurement process are insignificant as their respective p values are greater than 0.05 as depicted in the Coefficient Table 4.51 above.

From the above presented findings on the table of coefficients, the multiple linear regression model can now be presented as follows:

$$PPD = 2.630 + 0.471 LF - 0.013 PPR - 0.405 PSP + 0.020 INT$$

Where;

PPD = Performance of Procurement Department

L F = Legal and Regulatory Framework

PPR = Procurement Professionalism

PSP = Private Sector Participation

INT = Integrity in the procurement process

4.11.1.1 Testing of Hypotheses

The study objective was to assess the determinants of performance of the procurement departments in the public entities. In achieving this main objective, the study was guided by four null hypotheses which were subjected to statistical tests to determine their validity to the research objectives.

1: *H₀₁: There is no relationship between Legal and Regulatory Framework and Performance of the procurement departments in public entities.*

From the table of coefficients above (Table 4.51), the p- value = 0.009 < 0.05 which implies that the test is significant. On the basis of this result, **the null hypothesis is rejected**. As the level of compliance with rules and regulations increases, the performance of the procurement function in public entities increases too. The findings are in tandem with Agbesi (2009) and Mwangi and Kariuki (2013) who observed that

the performance of the procurement function tends to increase as the level of compliance with the procurement rules and regulations increases.

The findings may further justify the procurement audits carried out by the PPRA with a view to ensuring that procuring entities do comply with the applicable law and regulations. From the Tanzanian public procurement point of view, performance of the procurement function at the entity level is measured in terms of the level of compliance with existing procurement legislations. The compliance level on the other is attained based on the “numeric scores” obtained during the procurement audit conducted by the PPRA. Furthermore, section 8 (c) of the PPA states that “ it’s the objective of the PPRA as an oversight body to monitor the procurement activities in public entities with a view to ensuring that the entities comply with the applicable law, regulations, instructions, circulars and guidelines”

2: H02: There is no relationship between Procurement Professionalism and performance of the procurement departments in public entities

Results as depicted in the coefficient table above indicates that the p-value = 0.935 which is greater than 0.05. The result suggests that the test is insignificant and therefore **the null hypothesis is accepted**. This implies that adherence to procurement professionalism has no effect on the performance of the procurement department. The findings are to a larger extent in disagreement with previous and similar studies. Amayi and Ngugi (2013) conducted a study on “Determinants of Public Procurement Performance in Kenya. The study found that procurement professionalism strongly correlates with the performance of procurement in public entities in Kenya. Furthermore, a study by Eyaa and Oluca (2011), established that procurement professionalism is one of the significant predictors of compliance with procurement regulations in the central government entities in Uganda.

The possible explanation for this kind of result is that, the dependent variable (performance of the procurement department) was measured based on numeric scores obtained during the audit exercise. The entity that scores less than 50% is declared as non – compliant and therefore not performing well. Those entities scoring above 50% are declared as good performers but varying among themselves depending on the scores obtained. This dependency on numeric scores as the determinant of performance is limited since it does not explain and relate the basic functions and objectives of the department against which performance would fairly be determined. The scores are given against a predetermined checklist prepared by the PPRA. This checklist is based on the Public Procurement Act (PPA 2011) and the Public Regulations, for goods and works of 2013. The checklist act as a monitoring tool within a procuring entity to ensure that procurement processes are carried out according to the laid down procurement regulations.

3: *H₀₃: There is no relationship between private sector participation in public procurement and performance of the procurement departments in public entities.*

According to the results as shown on the table of coefficient above, the p value == 0.011 < 0.05 which implies that statistically the test is significance and hence the **null hypothesis is rejected**. The finding suggests that as the level of private sector participation in public procurement increases, there is a corresponding change in the performance of the respective procurement departments.

Furthermore, the result concurs with the findings in the study conducted in Korea by Rhee and Hangyong (2007). In that study, it was observed that private sector participation through the implementation of PPPs had helped the timely completion of road projects in comparison with road construction by the government, thus achieving value for money. An assessment of procurement systems in selected developing countries by the by the Development Assistance Committee of the OECD highlighted

that a competitive private sector market is a key partner to the well-functioning public procurement system (OECD, 2010).

H04: There is no relationship between Integrity in the procurement process and performance of the procurement departments in public entities.

In testing this hypothesis, the table of coefficient revealed a p value = 0.875 which is greater than 0.05. Statistically the results suggest the test is insignificant and therefore **the null hypothesis is accepted**. The implication here is that integrity in the procurement process had no effect on performance of the procurement function. The findings are in agreement with the survey by National and Corruption of 2009 which revealed that public procurement is prone to grand corruption. The surveys further portrays that the tendering process in public entities is rarely or never fair, as on average, procurement contracts involve unofficial payments of around 10% of the contract value.

A study on “Favouritism in Public Procurement” in Sweden conducted by Hyytinen *et al.* (2006) revealed favouritism in public procurement of cleaning services in which the municipalities paid on average 38% more than the lowest bid. A study by Office of the Controller and General Auditor (CAG, 2014) on “Cost Control in Public Procurement in Tanzania” found that public procurement is generally characterised by unrealistic plans, unrealistic budgets and unrealistic costs.

A survey by OECD (2007) on Fighting Corruption and Promoting Integrity in Public Procurement revealed that there are critical risks to integrity at all stages of the public procurement process, from the needs assessment through the bidding to contract management and payment. According to the survey, in several countries the phases before and after the bidding are not regulated by procurement laws but rather by civil and contract law. Therefore they are often less subject to transparency and accountability requirements, which entail risks to integrity in public procurement. Existence of corrupt practices was also revealed in a study titled “Identification of Factors that lead to

Inefficient Public Procurement: A case of VETA eastern Zone “conducted by Mwenyasi (2011) in which it was revealed that some officials involved in the procurement process were simultaneously engaged themselves in corrupt practices.

The above discussion explains the possible reasons as to why respondents were of the opinion that there is no effect of integrity in the procurement process and the performance of the procurement department. This can further be justified by the fact that corruption, bribery and fraud in procurement exist in several public entities in Tanzania, and yet the same entities score very high during the procurement audit and publically declared as good performers with clean audit reports. One can fairly conclude that the existing approach in measuring performance of the procurement function based on numeric scores obtained during the procurement audit by the PPRA is subjective and indeed debatable.

4.11.2 Regression Results Based on the Level of Achievement of Procurement Objectives

a) Model Summary

The table below presents the model summary indicating the relationship that subsists between the independent variables (predictors) and the dependent variable.

Table 4.52: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.562	.316	.298	.570

The results above indicate that the multiple correlation coefficient (R) which measures a relationship between the predictors (independents) and the response variable (dependent) is 0.562 or 56% indicating that there is direct and positive relationship between the predictors and the response (dependent) variable. On the other hand, the coefficient of variation (R- squared) is 0.316 which implies that only 32% of the variations on the objectives achieved by the procurement entities are due to the chosen explanatory variables. The remaining 68% of the variation in score is accounted by factors other than the ones used in this model.

Reasons for the low percentage (32%) of the variations are same as those given under item 4.11.1.1 above in which we expressed our concern that the predictors for this study were derived from the Basic Procurement Model developed by the OECD-DAC. The indicators in that model were initially developed to assess the *National* procurement systems in developing countries. Curiously, this study intended to test the same indicators at the *entity* level. Hence the reported findings are not surprising and does not cause any alarm on variables used. However, as compared to the previous regression model, here we find that there is a stronger relationship between the independent variables and dependent variable whereby the correlation coefficient (R) is 56% against 30% recorded in the regression model on compliance.

b) Analysis of Variance

Table 4.53 below shows the results of analysis of variance (ANOVA) which was carried out. The result indicates that the F statistic and associated p- value of 0.000 indicates the model to be fit for the data. In other words, since the p - value of the F- statistic was less than 0.05; it showed that the coefficient in the equation fitted was not equal to zero implying a good fit. From these results we can fairly conclude that the regression model fits the data and that the predictors had effect on performance of the procurement function.

Table 4.53: ANOVA for Performance of Procurement Department

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27.652	5	5.530	17.009	.000 ^b
	Residual	59.826	184	.325		
	Total	87.479	189			

a. Dependent Variable: P3.3: Extent to which the procurement department has achieved the procurement objectives

c) Parameter Estimates

Regression analysis gives the value of the regression equation for predicting dependent variable from the independent variables. The estimated coefficients indicate how much the “dependent variable” varies due to variation of any independent variable while holding other independent variables (predictors) constant. The regression output is presented in the following table 4.54 of parameter estimates.

Table 4.54: Estimated Regression Coefficients

Model	Unstandardized Coefficients		Standardised Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.643	.390		11.908	.000
Legal and Regulatory Framework	.227	.130	-.171	-1.748	.082
Procurement Professionalism	.526	.121	-.431	-4.360	.000
Private Sector Participation	.428	.118	.325	3.621	.000
Integrity in the procurement process	.215	.092	-.188	-2.344	.020

The results above suggest that changes on four predictors influence the achievement of the procurement objectives by the procuring entities and hence performance of the procurement department. These results are contrary to the previous model on compliance in which only two predictors had an effect on performance of the procurement department.

However, it is worthy to note here that the independent variable ‘transparency’ does not appear in the regression coefficients table due to the effect of factor analysis. Factor analysis is a technique, or more accurately, sets of techniques for identifying the underlying hypothetical constructs to account for the relationship between variables.

Subsequently, the method ends up reducing those attributes that could not load heavily to a factor. As a result, all the attributes falling under an independent variable “Transparency” were dropped as they could not load as required to include the variable in the model. These explanations also apply for results under Table 4.51 in page 147 above.

Based on the results as depicted on the table above, adherence to procurement professionalism has the greatest contribution on performance of the procurement department with a coefficient value of 0.526. This is closely followed by private sector participation, legal and regulatory framework and maintenance of high level of integrity with coefficients 0.428, 0.227 and 0.215 respectively. The straightforward interpretation of these findings is that, say, adherence to procurement professionalism increases the achievement of procurement objectives by 52.6%. In other words, as the level of adherence to procurement professionalism increases, the level of achievement of the procurement objectives increases too. The overall implication of these results is that, in order to achieve the procurement objectives and thus supporting the attainment of corporate goal of an organisation, public entities must pay more attention on adherence to procurement professionalism as it has the strongest influence on performance.

This positive relationship between procurement professionalism and performance of the procurement function concurs with the findings by Eyaa and Oluka (2011) and Amayi and Ngugi (2013) who observed that procurement professionalism strongly correlates with procurement performance in public entities. These findings may further suggest the need to fully support and strengthen the roles played by procurement professional bodies within the region such as Kenyan Institute of Supply Management (KISM) and Procurement and Supplies Professional and Technicians Board (PSPTB) in Tanzania. These are professional bodies responsible for among others, registration, development and regulate the conduct of procurement and supplies professionals.

Likewise, the coefficient for “private sector participation” is 0.428 and the t-test value is 3.621 and this coefficient is significant (p – value =0.000 < 0.05). The implication here is that, the achievement of procurement objectives in terms of time, quality and cost, increases by 43% when private sector organisations participate in the procurement opportunities offered by public entities, while holding other variables constant. This is simply to say the more and actively the private sector participates in the procurement opportunities, the higher the achievement of procurement objectives in the public entities, and the opposite is always true.

Other variables namely “legal and regulatory framework” and” integrity in the procurement process” whose coefficients are 0.227 and 0.215 respectively are also significant implying that they their presence tend to increase the level of procurement objectives by 22% and 21% respectively, while other variables are held constant. These results are similar to those by Agbesi (2009) and Mwangi and Kariuki, (2013) who observed that the performance of the procurement function tends to increase as the level of compliance with the procurement rules and regulations increases.

From the above presented findings on the table of coefficients, the econometric model now can be presented as follows:

$$PPD = 4.643 + 0.227 LF + 0.526 + 0.428 PSP + 0.215 INT$$

Where;

PPD = Performance of Procurement Department

LF = Legal and Regulatory Framework

PPR = Procurement Professionalism

PSP = Private Sector Participation

INT = Integrity in the procurement process

4.11.2.4 Testing of Hypotheses

As it was the case with the first regression model based on the level of compliance with procurement rules and regulation, testing of hypotheses was also felt imperative in this second regression model which is based on the level of achievement of procurement objectives. In both cases, the hypotheses testing are critical so as to determine their validity to our research objectives. The two tests based on two regression models helps us to compare and suggest on the most suitable model that answers our research questions. The study was guided by following four null hypotheses which were subjected to statistical.

1: *H₀₁: There is no relationship between Legal and Regulatory Framework and Performance of the procurement departments in public entities.*

Based on the table of coefficients above, the p- value = 0.082 < 0.1 implying that the test is significant at 10 per cent (insignificant at 5 per cent). On the basis of these results, **the null hypothesis is hereby rejected at 10 per cent level of significance.** The straightforward interpretation of these results is that as the level of compliance with rules and regulations increases, the performance of the procurement function in public entities increases too. In other words, there is a direct relationship between the level of compliance with rules and regulations and the level of achievement of procurement objectives. As noted earlier, these findings are in agreement with the previous findings by Agbesi (2009) and Mwangi and Kariuki, (2013) who observed that performance level of the procurement function tends to increase as the level of compliance with the procurement rules and regulations increases.

2: H₀₂: There is no relationship between Procurement Professionalism and performance of the procurement departments in public entities

Results as depicted in the coefficient table above indicates that the p-value for this hypothesis = $0.000 < 0.05$. Once again this indicates that the test is Significant. On the basis of these results, **the null hypothesis is hereby rejected at 5 per cent level of significance**. The rejection of the null hypothesis implies that adherence to procurement professionalism has an effect on the performance of the procurement department. As opposed to the results based on the previous regression model, these findings are to a larger extent in agreement with previous and similar studies. Amayi and Ngugi (2013) conducted a study on “Determinants of Public Procurement Performance in Kenya. The study found that procurement professionalism strongly correlates with the performance of procurement in public entities in Kenya.

Furthermore, a study by Eyaa and Oluka (2011), established that procurement professionalism is one of the significant predictors of compliance with procurement regulations in the central government entities in Uganda. A similar study conducted by Kechibi (2012) on “Factors affecting Public Procurement Performance in Local Government Authorities in Tanzania” revealed that adherence to procurement professionalism is an important determinant of performance of the procurement function in the local government authorities in Tanzania.

3: H₀₃: There is no relationship between private sector participation in public procurement and performance of the procurement departments in public entities.

The third null hypothesis for this study was on participation of private sector organisations in procurement opportunities released by public entities. Based on the results as shown on the table of coefficient above, the p value == $0.000 < 0.05$ which implies that statistically the test is significance and hence the null hypothesis is rejected at 5 per cent level of significance. These results suggest that the performance of the

procurement function in the public entities change proportional to the level of private sector participation in public procurement opportunities. In other words, the more the private sector participate in procurement activities of the public entities, the better the performance of the procurement functions in those public entities, and the reverse is also true.

The results are in tandem with the findings in the study conducted in Korea by Rhee and Hangyong (2007), in which it was observed that private sector participation through the implementation of PPPs had helped the timely completion of road projects in comparison with road construction by the government, thus achieving value for money. Furthermore, these results are agreement with section 79 of the PPA, 2011 which provides for application of procurement and disposal by tender activities under the solicited and unsolicited partner arrangements between the public sector and private sector organisations. By applying the procedures as stipulated in regulations 369 – 379 of the Public Procurement Regulations, 2013 and the provisions under the Public Private Partnership Act, 2010, public entities in Tanzania are required to encourage the private sector organisations to actively participate in the procurement opportunities offered by the public entities.

It is unsurprising therefore to see that major procurement contracts for the supply of goods, provision of services and construction works have been awarded to private sector organisations. Our interview respondents revealed that almost 75% of the procurement contracts in the public entities have been awarded to the private sector organisations. This further confirms the assertion by the OECD (2010) that a competitive private sector market is a key partner to the well-functioning public procurement system in developing countries.

H₀₄: There is no relationship between Integrity in the procurement process and performance of the procurement departments in public entities.

In testing the fourth and last hypothesis, the table of coefficient revealed a p value = $0.020 < 0.05$. Statistically the results suggest the test is significant and therefore the null hypothesis is rejected at 5 per cent level of significance. The implication here is that integrity in the procurement process had an effect on performance of the procurement function. Based on these results, it can fairly be argued that as the level of integrity among officials involved in the procurement process increases, the level of performance of the procurement department increases accordingly.

The above results are in agreement with the findings by Amayi and Ngugi (2013); Agbesi (2009) who revealed that maintaining integrity in the procurement process strongly correlated with procurement performance in public entities. This further concurs with Arrowsmith *et al.*(2000) and Soundry, (2007), who observed that maintaining integrity in procurement process is the most important pillar in the modern procurement systems and that accountability of the procurement officials is not only important from a public law, but also has economic implications as well. The results are also supported by Namusonge (2011) and Kalubanga (2013), who found that increased spending in public procurement justifies opportunity for procurement fraud, hence maintaining a high level of integrity is necessary to prevent fraud, corruption and other unethical practices that not only increase costs but also damage the reputation of the public entity.

4.12 The Optimal Regression Model

As hinted earlier, the inferential/ statistical analysis for this study was carried out by running two regression models based on two different procurement performance indicators. Using the same predictors, the researcher sought to find out which performance indicator best measures the performance of the procurement department in

the public entities. The first regression model was run based on ‘the level of compliance with procurement rules and regulations’ as a measurement for performance, while in the second model, the regression was based on ‘the level of achievement of procurement objectives in terms of time, quality and cost’.

Table 4.55: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.303	.092	.065	.747

In the first model, regression output based on compliance with rules and regulations indicated an R value of 0.303 and R² of 0.092. The R² of 0.092 implied that only 9% of the variation in the dependent variable organisational performance was explained by the variation of the model (independent variables). In other words, this implies that 91% of the variation in score is accounted by factors other than the ones used in this model. Moreover, the correlation coefficient (R) which measures a relationship between the predictors (independents) and the response variable (dependent) is 0.030 or 30% which indicates a weak relationship between the two. Furthermore, according to the table of coefficients, changes on only two out of the five predictors influence the scores obtained by the procuring entities and hence performance of the procurement department. Since the coefficients of two variables only were significant, study concluded that compliance with procurement rules and regulations is not the best measurement of performance of the procurement departments in public entities in Tanzania.

Table 4.56: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.562 ^a	.316	.298	.570

In the second model based on achievement of procurement objectives, indicated an R value of 0.562 and R² of 0.316 as shown in the table 4.56 above. The results above indicate that the correlation coefficient (R) which measures a relationship between the predictors (independents) and the response variable (dependent) is 0.562 or 56% which indicates that there is direct and positive relationship between the predictors and the response (dependent) variable). On the other hand, the coefficients of Four (4) independent variables were significant as indicated in the table of coefficients under item 4.11.2 above and Table 4.57 below. And it is on the basis of these findings the study concluded that performance of the procurement function is best measured in terms of the extent to which the function has achieved its (procurement) objectives.

Table 4.57: Parameter Estimates for Regression based on the Level of Achievement of Procurement Objectives

Model	Unstandardised		Standardised	t	Sig.
	Coefficients		Coefficients		
	β	Std. Error	Beta		
(Constant)	4.643	.390		11.908	.000
Legal and Regulatory Framework	.227	.130	-.171	-1.748	.082
Procurement Professionalism	.526	.121	-.431	-4.360	.000
Private Sector Participation	.428	.118	.325	3.621	.000
Integrity in the Procurement Process	.215	.092	-.188	-2.344	.020

a. Dependent Variable: P3.3: Extent to which the procurement department has achieved the procurement objectives (Time, Quality, Cost)

The importance of public procurement in both developed and developing countries are well documented and known. Public procurement has become an important weapon for political, economic, social and now technological survival. The most successful entities are those that understand how to effectively manage their procurement operations. The increased government spending on procurement justifies the need for analysing the performance of the procurement operations at all levels. In Tanzania, the procurement audit conducted by the PPRA is one of the means of making the public procurement achievements. The significance of public procurement is far reaching and affects many different areas of the economy. There is need therefore to put measures in place to ensure that public procurement yield maximum benefits to the public.

Auditing of public procurement activities is one of the means of making public entities achieve desired expectations of value for money, transparency and fair competition. However, experience has shown that this is not the only and appropriate approach to measuring the performance of the procurement function. The current performance measurement based on the audit score to a large extent does not necessarily reflect how well or poor the department is performing in terms of timeliness, quality and cost of the procured goods, services or works. Reliance on audit scores has created complacent among procurement officials who happen to score high during the audit. It is not uncommon therefore, to find a procurement department which has scored above 75% in the performance audit, but at the same time there are endless complaints by user departments and other stakeholders thrown to the very same department! The performance of procurement department should therefore be gauged in terms of its ability to making timely availability of the required quality goods, services or works and at the market price cost and thereby ensuring value for money.

4.13 Results of Hypotheses Test

The results of the second regression analysis based on level of the achievement of objectives, indicated that four hypotheses were not confirmed. In order of influence on performance of the procurement department, the study established the following ranking: Adherence to Procurement Professionalism; Participation by the Private Sector; Compliance with the Procurement Rules and Regulations and Maintaining a high level of Institutional Integrity. The research hypothesis testing is summarised as follows:-

Table 4.58: Summary of Hypothesis Testing

Hypothesis	P- Value	Decision
H₀₁: There is no significant effect of compliance with Legal and Regulatory Framework on the Performance of the procurement departments in public entities.	0.082	Rejected
H₀₂: There is no significant effect of adherence to Procurement Professionalism on performance of the procurement departments in public entities in Tanzania	0.000	Rejected
H₀₃: There is no significant effect of participation by the private sector organisations on performance of the procurement departments in public entities in Tanzania.	0.000	Rejected
H₀₄: There is no significant effect of maintaining integrity in the procurement process on performance of the procurement departments in public entities in Tanzania	0.020	Rejected

4.14 Optimal Model

On the basis of the results of the above inferential analysis, the following figure is hereby adopted as the optimal model for the study. Four variables were found to be valid, as hypotheses were tested and all the variables statistically established to be relevant. Hence, the optimal model is presented in Figure 4.1 below.

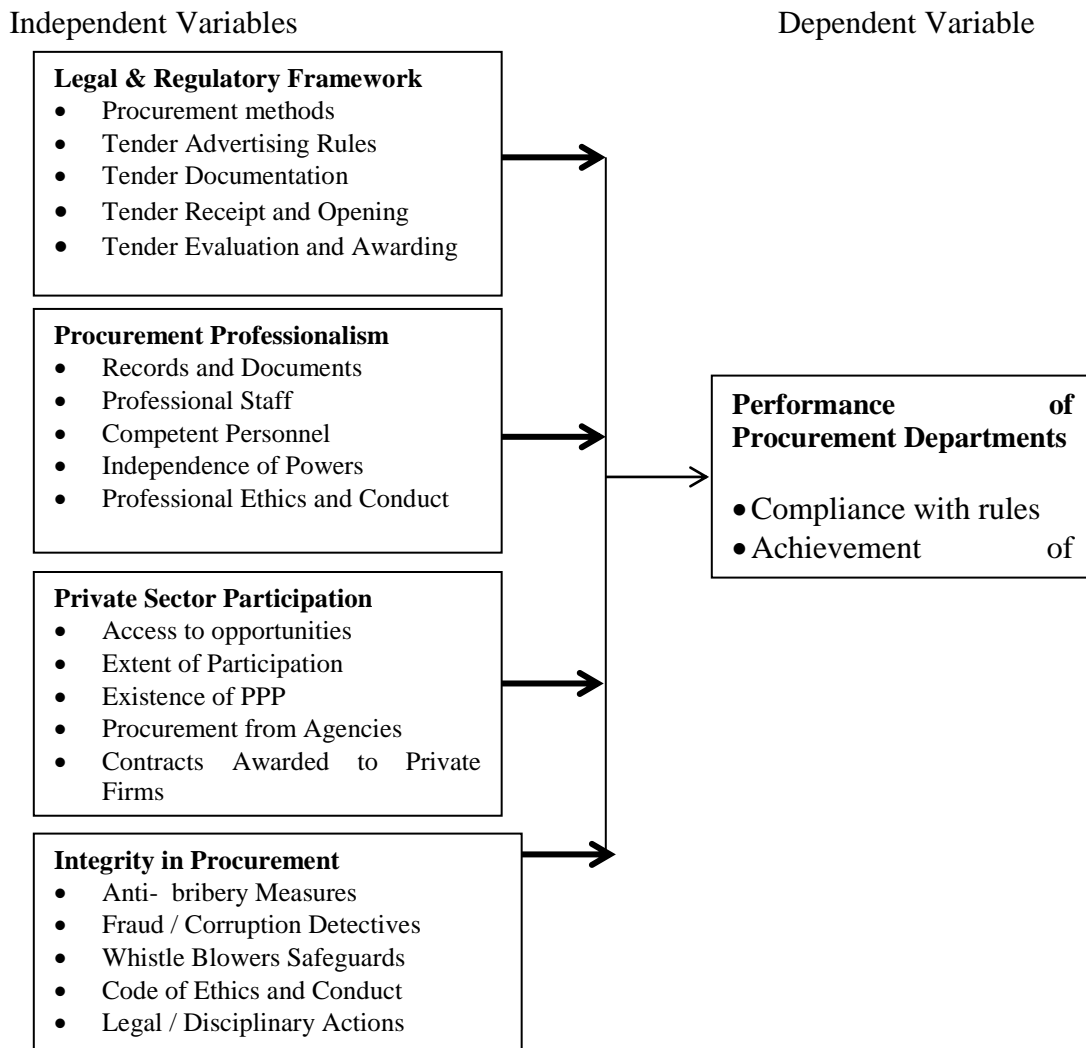


Figure 4.1: Optimal Model

4.15 Chapter Summary

The outgoing chapter has presented the study findings concerning the respondents, entity demographics, and descriptive statistics of the study variables based on frequencies, mean scores and standard deviations. Hypotheses testing using multiple regression analyses have also been presented. On the basis of the presented results, four hypotheses tested were not accepted (rejected). The presented results further suggest that all officials involved in the procurement process should maintain a high level of integrity while ensuring compliance with the rules and regulations for improved performance. In all cases, the main focus should be on achievement of the procurement objectives measured in terms of three key performance indicators; on – Time delivery, right Quality and best Cost/Price.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

After undertaking this research work as described above, the synopsis of the entire study is presented in this chapter. Specifically, this chapter discusses the research findings as presented in the previous chapter, the conclusions drawn from the findings, recommendations that were made relating to the deficiencies identified, the new knowledge gained and added and the proposed areas for further researches.

5.2 Summary

This study was prompted by the general objective which was to determine the factors that influence the performance of procurement function in public entities in Tanzania. In conjunction with this main objective, the study specifically evaluated the effect of legal and regulatory framework, assessed the effect of procurement professionalism, determined the effect of participation of the private sector, investigated the effect of transparency in the procurement process and finally found out the effect of integrity in the procurement process on performance of procurement departments in public entities in Tanzania. With exception of *transparency*, the other four variables were statistically significant and therefore considered for further analysis and discussions. In measuring the performance of the procurement departments, two regression models, one based on the level of compliance with rules and regulations and another based on the level of achievement of objectives were developed. This kind of comparison informed us on the best model that public entities should adopt in measuring the performance of their procurement departments.

5.2.1 Effect of Legal and Regulatory Framework on Performance of the Procurement Departments in public entities

This was the first objective of the study. The objective in this variable was to evaluate if there is a significant effect of compliance with the procurement rules and regulations (here referred to a legal and regulatory framework) on performance of procurement departments in public entities in Tanzania. The regression analysis indicated a positive linear relationship between compliance with rules and regulations (legal and regulatory framework) and performance of the procurement function in public entities.

The findings further revealed that to a large extent, compliance with the legal and regulatory framework was significantly contributed by all of the five attributes under the independent variable namely Choice of procurement methods; Submission, receipt and opening of tenders; Tender evaluation ; Tender documentation and Tender advertising rules.

5.2.2 Effect of Procurement Professionalism on Performance of the Procurement Departments in public entities

The second objective of the study was to assess the effect of adherence to procurement professionalism on performance of the procurement departments in public entities. Results of the regression analysis indicated a linear relationship between the two variables suggesting that the former has an effect on the latter.

Based on the results of the descriptive analysis, all five attributes under this variable significantly contributed to the adherence to procurement professionalism among the entities. The attributes that contributed to the attainment of procurement professionalism in order of ranking are; - Record keeping ; Compliance with Professional Code of Ethics and Conduct; Competency of officials involved in the procurement process;

Independency of functions and powers and Adequacy of staff in the procurement department.

5.2.3 Effect of Private Sector Participation on Performance of the Procurement Departments in public entities

The third objective of the study was to determine the extent of participation by the private sector organisations in procurement opportunities and their effect on performance of procurement departments in those public entities. The regression output indicated a positive linear relationship between the two suggesting that indeed participation by the private sector has an effect on performance of the public entities.

Jointly, the five attributes under this variable do have an influence on the extent to which the private sector participates in the procurement process in public entities. Specific attributes for this variable ranked by relative importance are; - Free access to procurement opportunities; Major contracts awarded to the private sector organisations; Specific procurement from government agencies; Active participation by the private sector and the existence of public – private partnership arrangements.

5.2.4 Effect of Institutional Integrity on Performance of the Procurement Departments in public entities

The fourth and last objective of this study was to find out the effect of maintaining institutional integrity in the procurement process on performance of the procurement departments. The regression output indicated that there is a linear relationship between the two variables under consideration.

The variable consisted of five attributes, all of which were supportive to maintenance of institutional integrity in the public entities. Based on their relative importance, the five attributes to this variable are; Existence of provisions addressing unethical behaviour; Existence of Codes of Ethics and Conduct; Existence of measures to detect and prevent

fraud; Existence of secure mechanism for whistle blowers and Evidence(s) on penalties imposed against law defaulters .

5.2.5 Determinants of Performance of the Procurement Departments

The dependent variable for this study was performance of the procurements departments in the public entities. In assessing the performance, two components were adopted, first was the level of compliance with procurement legal and regulatory framework attained by the entity and secondly, the level of achievement of procurement objectives in terms on – time delivery, right quality and cost of the procured goods, services and works attained by the entity for a given financial year. While the former was established based on the scores obtained by the entities in the previous procurement performance audit conducted by the PPRA, the latter was established by examining the extent to which the procurement departments were actually able to make the procurement requirements available timely, at the right quality and cost.

a) Regression Output Based on Compliance with Legal and Regulatory Framework

The regression output for the first model based on compliance indicated the correlation coefficient of 0.030 which shows a weak relationship between the response variable (dependent) and the predictors (independents). The coefficient of variation (R- squared) is 0.092 which shows that only 9 per cent of the variations on the score obtained by the procurement entity are due to the chosen explanatory variables. Statistically this brings in an alarming situation as to whether the variables used were the true representations! However , the F- test (in the ANOVA table which tests whether the overall regression model is a good fit for the data, shows that the predictors statistically significantly predict the scores implying that the model fits the data.

Likewise, based on Un-standardised Coefficients (which indicates how much the “scores” varies due to variation of any independent variable while holding other independent variables constant) as depicted in the table of coefficients, revealed that only two independent variables namely ‘Legal and Regulatory Framework ‘ and ‘Private Sector Participation in the procurement process’ are statistically significant.

It is on the basis of these results, the study concluded that the level of compliance with procurement rules and regulations is a necessary but not a sufficient approach of measuring performance of the procurement function in public entities. This conclusion is supported by the existing paradox whereby entities obtain high scores in the performance audit by the PPRA, and yet procurement in the public entities in Tanzania is still characterised by partial or untimely deliveries, poor quality and inflated prices of the procured goods, works and services. At this juncture and based on the current practices and performance of the public procurement, one can fairly conclude that the means does not necessarily justify the ends.

b) Regression Output Based on Achievement of Procurement Objectives

In this model, the regression output indicated the correlation coefficient of 0.562 and the coefficient of variation (R^2) of 0.316. The F- test in the ANOVA shows that statistically the predictors significantly predict the scores, implying that the model fits the data. Statistically, this indicates the stronger relationship between the dependent variable and the independent variables as compared to the previous model based on compliance with rules and regulations.

Un-standardised Coefficients which indicates how much the response variable varies due to variation of any independent variable while holding other independent variables constant revealed that four independent variables namely Legal and Regulatory Framework; Procurement Professionalism; Private Sector Participation and Integrity in the Procurement Process are statistically significant. The implication here is that, the

four independent variables have an effect on performance of the procurement departments in public entities.

On the basis of the above results, it can fairly be concluded that achievement of procurement objectives is a better approach to measuring performance of the procurement department in the public entities. On individual basis procurement professionalism greatly affects achievement of procurement objectives and hence performance. The contribution of procurement professionalism on performance of the procurement departments is closely followed by private sector participation; legal and regulatory framework and integrity in the procurement process. The effect of procurement professionalism on public procurement has also been explained and emphasised in studies by Raymond, (2008); Global Partner Associates, (2012); Gelderman *et al.*(2006); Eyaa and Oluka, (2011).

5.3 Conclusions

The overriding objective of this study was to determine the factors that influence performance of procurement function in the public entities in Tanzania. The target population was all procuring entities as defined by the PPA (2011). The sampled population consisted of all the entities that were audited in the previous three financial years, that is, from 2011/2012 – 2013/ 2014 FY. In order to empirically test the effect of the proposed variables, a conceptual model was developed. Both primary and secondary data were collected. The main data collection tool employed was a self-administered questionnaire measured in a 5 points Likert scale. Data were collected from the key players in the current public procurement process in the country. These were members from user or project departments, procurement management units and tender boards. Data were analysed through descriptive and inferential analyses.

In operationalizing the dependent variable (performance of the procurement function), the study applied two regression models using the same predictors but with different performance indicators. The two performance indicators regressed were Compliance with the procurement rules and regulations and Achievement of the procurement objectives. After considering both descriptive and inferential analyses based on the two regression models, the following are the main conclusions that can be drawn from this study;-

Firstly, the study concludes that performance of public of procurement departments in the public entities in Tanzania is influenced by the existing legal and regulatory framework, procurement professionalism, private sector participation and the level of integrity in the procurement process.

Secondly, in terms of the methodology, the study concludes that the Baseline indicators or the Four Pillars Model as developed by the OECD-DAC can as well be applied in assessing performance of the procurement function at the entity level. Ideally, these indicators were intended to be used as a methodology for assessing procurement systems (MAPS) in developing countries and at the national level. This study has established that the pillars or indicators can be cascaded to the entity level and assess the performance of the procurement departments in the respective public entities. The researcher observed consistency in the responses obtained from the questionnaire (whose statements were derived from the Four Pillars Model) and responses through the face to face interview, justifying that the tool is appropriate in assessing performance at the lower (entity) level as well.

Thirdly, on the performance measures for the procurement function, despite the reviewed literature suggesting that there is no single generally applicable approach which may be used to measure procurement performance, and that the measures for procurement performance have to be customized for virtually every organisation, this study has established that in the public sector where all entities apply standard

procurement rules, regulations, policies, guidelines and instructions, a common measures for the procurement function can be adopted as well. And it's on the basis of such standard measures that performance of one procuring entity can fairly be compared with another. This is the current practice in Tanzania whereby all entities are audited by the oversight body using the same standard checklist titled Checklist for Monitoring All Procurement within the Procuring Entities (2013).

Fourthly, on the appropriate procurement performance indicator (s), the study concludes that performance of the procurement function in the public entities is best measured in terms of its level of achievement of the procurement objectives as reflected in on-time delivery, right quality and reasonable prices of the procured goods, services and works. In the two regression models developed in this study, the findings are in favour of the second model in which performance of the procurement department was assessed in terms of its ability to make *timely* availability of *quality* goods, works and service required by the entity. This conclusion is supported by the regression output of the second model in which the model summary indicated a correlation coefficient of 0.562 (56%) indicating a significant relationship between independent variable and dependent variable. Nevertheless, it should be note that this measure is perceived and therefore more subjective, hence not reliable. Future studies should therefore adopt more realistic metrics on performance of the procurement function in the public sector institutions.

Overall, the study concludes that performance of public procurement departments in Tanzania which is measured in terms of quality, timely delivery and reasonable prices of the procured items is influenced by, among other factors, .procurement professionalism, private sector participation, legal and regulatory framework and integrity in the procurement process.

5.4 Recommendations

Emanating from the above research findings, analyses, discussions and conclusions, the following recommendations can be made with regards to the performance of the procurement function in public entities in Tanzania. The recommendations are discussed under two subheadings; Policy Recommendations and Managerial Recommendations.

5.4.1 Policy Recommendations

Effective and value for money procurement has been earmarked as one of the important ingredients in the achievement of the country's vision 2025. Public entities through effective procurement are the key players in spurring the country's economic aspirations. The best way to achieve the expected value for money procurement is to ensure compliance with the applicable rules and regulations. Nevertheless, despite the government efforts to establish the law and regulations to govern the procurement operations in the public entities, this study has established low level of compliance with the applicable procurement legislations. It is recommended that the PPRA as an oversight body should focus on enforcement of the established rules and regulations with a view of enhancing compliance and punitively deal with entities found violating the rule and regulations. Certainly, this will increase compliance levels among the entities and consequently value for money procurement can be achieved through timely availability of best quality and priced goods, works and services.

The oversight body (PPRA) should consider revising and improving the checklist used for monitoring the procuring entities. In particular, the revision should include incorporating questions or statements relating to timely availability, quality and cost aspects of the procurement requirements. The inclusion of time, quality and cost aspects is absolutely relevant in assessing the performance of procurement in the public entities, because the common citizens (who are the taxpayers) are interested only in seeing that quality goods, works and services are procured at reasonable costs and made available

timely. The numeric audit scores do not reflect the performance of the procurement function since they have failed to reduce customers' complaints on the functioning of procurement departments.

In order to enhance procurement performance and the overall economic development of the country, the government of Tanzania should ensure that procurement professionalism is adhered to in all public entities. Employment of professionally trained and qualified procurement staff should be emphasised and implemented. The Public Procurement Policy Division in the Ministry of Finance and Planning should focus more on development and management of the procurement cadre through building capacity of procurement and supplies staff in the country. For the PSPTB as a professional board should focus on enforcement of the requirement for professional registration and adherence to professional code of ethics and conduct among procurement practitioners in the country.

The private sector is growing and becoming an engine of the Tanzanian economic development. Decision makers in the government therefore should focus on public - private partnership arrangements in order to enhance performance of the public entities. It is therefore the sole responsibility of the decision makers both in government and at the entity levels to put in place commercial discipline that will create confidence and attract the private sector into working with public entities. The best way to do this is establish mutually and commercially based relationships with the private sector organisations in a fair and transparent manner. In particular, it is recommended that suppliers, service providers and contractors from the private sector should be paid on time and hence encourages them to participate effectively. It is hard and unfair to expect fair treatment from a supplier, service provider or contractor who is not paid on time.

5.4.2 Managerial Recommendations

Procuring entities should comply with the existing procurement law and regulations. Compliance with the law is not only important for the purpose of obtaining ‘Clean Audit Reports’, but more importantly in ensuring that value for money procurement is achieved through a fair, transparent and accountable manner. Compliance on the other hand requires that all those involved in the procurement process are familiar with the rules and procedures as stipulated in the guiding law and regulations. Although there are presently a number of sensitisation workshops on PPA and its Regulations organised by the PPRA, these workshops are reserved for top and sometimes intermediate level managers, - people at the lower echelons do not receive adequate training, and this situation reduces the impact of any training on the performance of the procurement department. It is our recommendation that sensitisation workshops on procurement law and regulations should be arranged and attended by all those involved in the procurement process within the entity.

In order to maintain integrity in the procurement process the, the study recommends that public entities must ensure that public procurement procedures are transparent and promote fair and equal treatment, public resources linked to public procurement are used in accordance with intended purposes; and procurement officials’ behaviour and professionalism are in line with the public objectives of their respective entities. Efforts should be made by the entities in providing procurement officials with adequate skills, experience and qualification for preventing risks to integrity in public procurement. Procurement officials, who are increasingly required to play a role of “contract manager” in addition to their traditional duties, should be exposed to new skills, that is, not only specialized knowledge related to public procurement, but also project management and risk management skills.

Procurement departments in the public entities should be staffed with adequate and professionally qualified staff as required by both, the PSPTB Act, 2007 and the PPA, 2011. Procurement is no longer any body's job. It is a professional job that must be managed only by those personnel who are professionally trained and qualified. Procuring entities should ensure that their respective procurement departments are adequately staffed and headed by a person with professional qualification and who is registered by the procurement professional board (PSPTB). The strategic importance of procurement will only be realised if there is enforcement of the current provisions of the laws addressing procurement professionalism.

In order to address the problem of inadequate resources/ funding for implementation of projects, the study recommends that the partnership arrangements with the private sector should be encouraged and practiced. Our study has ascertained that the private sector in Tanzania is actively participating in the procurement opportunities offered by the public sector. Given the increased demand for public services, there is therefore that opportunity for the public sector working together with the private sector as one way of reducing the government expenditures. The public entities should therefore continuously work together with the private sector.

5.5 Areas for Further Research

Since the public entities are in different categories (Ministries, Parastatals, Executive Agencies, Independent Departments, Local Government Authorities), the study suggests that future study should focus on specific category so as to establish as to whether performance of procurement function in the public entities differ depending on the category in which the respective entity belongs in or not.

The findings from this study cannot be generalised and reflect the performance of procurement in the private sector organisations. This is simply because procurement function in the private sector is not governed or guided by the rules and regulations as it the case in the public entities. However, since the empirical findings indicate that the private sector is a key partner in the well-functioning of the public procurement, the study suggest that future research be carried out in the private sector organisations as well.

Since Article 35 of the East African Common Market Protocol requires harmonization of the procurement procedures within the East African Community member states, it is hereby suggested that future research be conducted in other East African countries with a view to making comparison in terms of levels of compliance with the applicable procurement legislations and hence performance of the procurement departments in general. The findings from such study will establish a good base for the proposed harmonization of procurement procedures within the region.

Generally, this chapter has presented the summary of the findings of the study and these were discussed based on the objectives. Some of the findings supported previous results while others contrasted previous research findings. Further, the chapter presented policy and managerial recommendations relevant to the field of public procurement. Areas for further research have also been suggested and presented. It's the researcher's expectations that readers will find the discussions and recommendations presented in this study are both relevant and useful in efforts to improve the performance of the procurement function in public entities in Tanzania.

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APPENDICES

Appendix I: Questionnaire

Dear respondent;

My names are Noel Peter Mrope, a PhD candidate at Jomo Kenyatta University in the Republic of Kenya. I am doing an academic research which is looking at performance of procurement departments in public sector entities. I humbly request for your participation in this study. Your opinion is extremely important in this study and I promise that you shall be kept anonymous. Thank you for your time and be blessed.

PART I: General Information	
Please put a tick (✓) in the correct box provided in each question	
1.	Type of organisation Local Authority <input type="checkbox"/> Ministry <input type="checkbox"/> Independent department <input type="checkbox"/> <input type="checkbox"/> Parastatal organisation Regional Administrative Secretariat <input type="checkbox"/> 2. Government Agency <input type="checkbox"/> Other (specify)
	Size of the organisation (in terms of number of employees) <input type="checkbox"/> Micro : 1 – 4 employees <input type="checkbox"/>

	<p>Small : 5 – 49 employees <input type="text"/></p> <p>Medium : 50 - 99 employees <input type="text"/></p> <p>Large : 100 and above <input type="text"/></p>
3.	<p>Age of the organisation(in years) since its establishment</p> <p>Less than 10 years <input type="text"/></p> <p>10 – 20 years <input type="text"/></p> <p>20 – 30 years <input type="text"/></p> <p>Above 30 years <input type="text"/></p>
4	<p>Your working experience (in years) in this organisation</p> <p>Less than 5 years <input type="text"/></p> <p>5 -10 years <input type="text"/></p> <p>10 – 15 years <input type="text"/></p> <p>16 – 20 years <input type="text"/></p> <p>Above 20 years <input type="text"/></p>
5	<p>What is your highest level of education</p> <p>Certificate <input type="text"/></p> <p>Diploma <input type="text"/></p> <p>First Degree <input type="text"/></p>

	<p>Master's Degree <input type="checkbox"/></p> <p>PhD <input type="checkbox"/></p> <p>Other (Specify)</p>
6	<p>Do you have any Professional Qualification?</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>If Yes, mention the professional qualification you currently hold.....</p>
7	
8	<p>What is your current position or title in this organisation.....</p> <p>What is your specific role in procurement related activities in this organisation</p>
	<p>PMU Head/ Staff <input type="checkbox"/></p> <p>Tender Board member <input type="checkbox"/></p>
9	<p>User/ customer department <input type="checkbox"/></p> <p>Have you attended a training (including short courses, seminars or sensitisation workshops) on the Public Procurement Act and its Regulations?</p> <p>YES <input type="checkbox"/></p>

10	<p>NO <input type="checkbox"/></p> <p>If worked with another organisation before, have you had experience with procurement related activities?</p> <p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p>
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PART II: Below are statements describing functions, activities and responsibilities of a procurement department in an organisation. Please indicate by ticking the extent to which you agree or disagree with each statement as applied to your organisation.

No.	Statement	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1.	In my entity, choices of procurement methods comply with applicable law and regulations.					
2.	There is a safekeeping of records and documents related to procurement and contract management in the procurement department of my entity.					
3.	Procurement opportunities of my entity are freely accessed by private sector organisations					

No.	Statement	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
4.	Information relating to procurement process in my entity are published through the available media					
5.	There are provisions in the existing procurement law addressing unethical behaviour (corruption, fraud and conflict of interest).					
6.	Tender advertising rules issued by my entity are in accordance with the existing procurement regulations					
7.	The procurement department (PMU) in my entity is adequately staffed with qualified professionals					
8.	Private sector organisations actively participate in the procurement opportunities offered by my entity.					
9.	In my entity, procurement activities are subject to internal and external audits.					
10.	In my entity, there are measures used to prevent fraud and corruption in					

No.	Statement	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
	the procurement process.					
11.	Tender documentation in my entity adhere to the applicable procurement law and regulations					
12.	Officials involved in procurement activities in my entity are competent enough to perform their respective responsibilities					
13.	For some projects, my entity works in partnership with the private sector through a well-established public – private partnership (PPP) arrangements.					
14.	In my entity, any interested stakeholder is able to know the process by which procurement contracts are awarded.					
15.	In my entity, there is a secure mechanism in place for those who have information and wish to report on any unethical behaviour in the procurement process.					

No.	Statement	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
16.	Submission, receipt and opening of tenders in my entity are in accordance with the applicable procurement regulations and instructions					
17.	Officials involved in the procurement process in my entity perform their respective duties independently.					
18.	There are specific goods and services which my procures from Government Agencies as required by the law					
19.	In my entity, procurement auditors are provided with all the necessary information relating to procurement procedure					
20.	In my entity, there are Codes of Ethics and Conduct for all those involved in the procurement decision making process.					
21.	Tender evaluation and awarding criteria in my entity comply with the applicable procurement law and regulations.					

No.	Statement	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
22.	In my entity, the procurement staff complies with the Professionals' Code of Ethics and Conduct.					
23.	In my entity, most of major procurement contracts have been awarded to the private sector organisations.					
24.	In my entity, there are management follow-ups and actions on procurement auditors' findings and recommendations.					
25.	There is evidence(s) of legal and/or disciplinary actions taken against those who have violated the procurement law in my entity.					

PART III: Information related to Procurement Department/Unit

Please put a tick in the appropriate box that indicates your answer

What score did your entity obtain during the last Procurement Audit by the PPRA?

- 0 – 29
- 30 – 49
- 50 – 69
- 70 – 89
- 90 – 100

1. What are the major reasons for the achieved score (please explain).-----

2. In your opinion, what is the extent to which the procurement department of your entity has fostered availability of the required goods, works and services at the right **Time, Quality and Price**?

Very Large

Large

Moderate

Low

Very Low

3. What are the common complaints from user departments concerning the functioning of the procurement department/unit in your organisation? (please explain)-----

Once again thanking you for your valued responses and guaranteeing you confidentiality of the information you have provided.

Appendix II: Interview Guide for Internal Auditors

1. What is your specific role in procurement related activities in this organisation?
2. The public procurement activities are guided by annual procurement planning (APP). Has your entity been able to implement its annual procurement planning fully? If **No**, what are the common challenges?
3. In your opinion, what are the challenges facing your entity in implementing the Public Procurement Act and its Regulations in general?
4. What can you say about the capacity of the procurement department (PMU) in this entity in terms of staffing and competencies of its staff?
5. Do the private sector organisations participate in the procurement opportunities and activities of this organisation? If **Yes**, how frequent and to what extent?
6. How do potential bidders and interested parties know and understand the actual process and decisions by which procurement contracts are awarded and managed by this entity?
7. In this entity, are there specific measures in place to ensure that the entity's procurement system is operating with integrity and hence prevent fraud, corruption and unethical practices? If **Yes**, mention and explain.
8. What is your general view on the performance of the procurement department (PMU) in this entity over the years?

-----END-----

Appendix III: List of Entities Surveyed

NO	NAME OF ENTIY	CONTACT ADRESS
1	Tanzania Institute of Accounts (HQs),Dar	P.O Box 9522, Dar; Tel: +255 22 2851035-6; Fax: +255 22 2851038; Email: tia@tia.ac.tz
2	Ilala Municipal Council	P.O Box 20950, Dar;Tel: 255 222123551/5; Fax:+255 22 2125589
3	Regional Administrative Secretary (RAS) , D’Salaam	P.O Box 5429, Dar; Tel + 255 22 2203156/2203158; Fax: +255 22 2203213; Email: ras@dsm.go.tz
4	Tanzania Education Authority (TEA) , D’Salaam	P.O Box 34578, Dar; Tel: + 255 22 2775438; Fax: +255 22 2775516
5	Weighing and Measuring Authority	P.O Box 313, Dar; Tel: +255 22 2928158; Fax: 255 22 2928160; Email: info@wma.go.tz
6	Tanzania Law of School	P.O Box 9422,Dar; Tel: +255 22 2927634; Email: info@lst.ac.tz
7	Business Registration and Licensing Authority (BRELA)	P.O Box 9393, Dar; Tel: +255 22 2181344; Website: www.brela-tz.org
8	Morogoro Urban Water Supply and Sewerage Authority	P.O Box 5476, Morogoro; Tel: +255 23 2614182; Fax: +255 23 2614145
9	Fair Competition Tribunal	P.O Box 79650, Dar; Tel: +255 22 2461173; Fax: +22 22 2461174; Email: info@fct.or.tz
10	Ministry of Agriculture	P.O Box 9192, Dar; Tel: +255 22 286 2480; Email: ps@kilimo.go.tz
11	Kariakoo Market Corporation-D’Salaam	P.O Box 15789, Dar; Tel: +255 22 2183114
12	Gaming Board of Tanzania	P.O Box 1717, Dar; Tel: +255 22 2124703/4; Fax: +255 22 2124705
13	Tan Trade	P.O Box 5402, Dar; Tel: 255 22 285 0238; Fax: + 255 22 285 0539
14	Local Authority Pension Fund (LAPF), Dodoma	P.O Box Dodoma, Tel: +255 26 232 1069
15	Regional Administrative Secretary (RAS), Dodoma	P.O Box 914, Dodoma; Tel; +255 26 232 0046
16	Institute of Rural Development and Planning (IRDP), Dodoma	P.O Box 138, Dodoma; Tel: +255 26 230 3190; Email: rector@irdp.ac.tz
17	Dodoma Urban Water Supply and Sewerage Authority	P.O Box 431, Dodoma; Tel: +255 26 232 4245
18	Lindi Urban Water Supply and Sewerage	P.O Box 175, Lindi; Tel: +255 23

	Authority	2202117; Email: info@luwasa.or.tz
19	Regional Administrative Secretary (RAS), Lindi	P.O Box 1054, Lindi; Tel: +255 23 220 2098; Email: ras.lindi@tamisemi.go.tz
20	Lindi District Council	P.O Box 328, Lindi; Tel: +255 23 220 2261, Email: dedlindi@lindi.go.tz
21	Lindi Town Council	P.O Box Lindi; Email: lindi@gmail.com
22	Agriculture Seed Agency (ASA), Morogoro	P.O Box 364, Morogoro; Tel: +255 23 2600109; Email: asa@asa.or.tz
23	Morogoro Municipal Council	P.O Box 166, Morogoro; Tel: +255 23 260 3336
24	Mvomero District Council	P.O Box 663; Tel +255 23 261 3007; Email: info@mvomero.com
25	Kilosa District Council	P.O Box 65, Kilosa; Tel: +255 23 26223093; Fax: +255 23 2623333
26	Capital Development Authority (CDA), Dodoma	P.O Box 913, Dodoma; Tel: +255 26 2321569; Fax: +255 26 2322650; Email: info@cda.go.tz
27	Prime Minister's Office- Reg, Admin & Local Authority (TAMISEMI)	P.O Box 1923, Dodoma; Tel: +255 26 23212334; Email: ps@tamisemi.go.tz
28	Public Service Recruitment Secretariat	Tel: +255 22 2153517; Fax: +255 22 2153518
29	National Insurance Corporation (HQs – DSM)	P.O Box 9264, Dar; Tel; +255 22 211 3823; Email: info-nic@nictanzania.co.tz
30	Tanzania Metrology Authority (TMA)	P.O Box 3056, Dar; Tel: +255 22 2460706-8; Email: met@meteo.go.tz
31	Institute of Finance Management (IFM)	P.O Box 3918, Dar; Tel: +255 22 2112931-4; Email: rector@ifm.go.tz
32	TANESCO (HQs – DSM)	P.O Box 9124 Dar; Tel: +255 22 2451130; Email: info@tanesco.co.tz
33	College of Business Education (CBE, HQs – DSM)	P.O Box 1968, Dar; Tel: +255 22 2150177; Fax: +255 22 2150122
34	Dar Institute of Technology (DIT)	P.O Box 2958, Dar; Tel: +255 22 2150174; Fax: +255 22 2152504
35	Prevention and Combating of Corruption	P.O Box 6420, Dar; Tel: +255 22

	Bureau (PCCB), DSM HQs	2861088; Email: rbcilala@pccb.go.tz
36	Dar Water Supply Company (DAWASCO)	P.O Box 5340, Dar; Tel: +255 22 211 0931; Email: info@dawasco.go.tz
37	National Electoral Commission (NEC)	P.O Box 10923, Dar; Tel: +255 22 2114963-6; Fax: +255 22 2113338; Email: info@nec.go.tz
38	Small Industry Development Organisation (SIDO)	P.O Box 2476, Dar; Tel: +255 22 2151948; Email: dg@sido.go.tz
39	National Health Insurance Fund (NHIF , HQs – DSM)	P.O Box 11360, Dar; Tel: +255 22 2133969; Email: info@nhif.or.tz
40	Dar Water Supply and Sewerage Authority (DAWASA)	P.O Box 1573, Dar; Fax: +255 22 2110999
41	Tanzania Social Action Fund (TASAF)	P.O Box 9381, Dar; Tel: +255 22 2123583; Fax: +255 22 21233582; Email: info@tasaf.go.tz
42	Tanzania Public Service Commission	P.O Box 2574, Dar; Tel: +255 22 2122243; Email: info@tpsc.go.tz
43	National Board for Accountants and Auditors (NBAA)	P.O Box 5128, Dar; Tel: +255 22 2211890; Email: info@nbaa.go.tz
44	Ministry of Foreign affairs	P.O Box 9000, Dar; Tel: +255 22 2111906; Email: nje@.go.tz
45	Kinondoni Municipal Council	P.O Box 31902, Dar; Tel: +255 22 2170173; Email: md@kinondonimc.go.tz
46	Ministry of Works	P.O Box 9423, Dar; Tel: +255 22 2123936; Email: ps@mow.go.tz
47	The Central Bank of Tanzania	P.O Box 2939, Dar; Tel: +255 22 2233000 -20; Fax: +255 22 2234075
48	Ministry of Water	P.O Box Dar, Tel: +255 22 2450838; Fax: +255 22 2450533; Email: psmw@maji.go.tz
49	Ministry of Energy and Minerals	P.O Box 2000, Dar; Tel: +255 22 2117156; Email:

		info@mem.go.tz
50	The National Audit Office (NAO)	P.O Box 9080, Dar; Tel: =255 22 2115157; Fax: +255 22 2117527; Email: ocag@nao.go.tz
51	Tanzania Bureau of standards (TBS)	P. O Box 9524, Dar; Tel: +255 22 2450259; Fax: +255 22 2450959; Email: info@tbs.go.tz
52	National Social Security Fund (NSSF HQs – DSM)	P.O Box 1322, Dar; Tel: +255 22 2163400-19; Email: dg@nssf.or.tz
53	Ministry of Natural Resources and Tourism	P. O Box 9372, Dar; Tel: +255 22 2861870; Email: ps@mrnt.go.tz
54	Tanzania Agriculture Commission	P.O Box 14130, Dar; Tel: +255 22 2124851; Fax: +255 22 2128032; Email: act@actanzania.or.tz
55	Regional Administrative Secretary (RAS), Pwani	P.O Box 30080, Kibaha; Tel: +255 023 2402287; Email: ras@tamisemi.go.tz
56	Regional Administrative Secretary (RAS), Singida	P.O Box 5, Singida; +255 26 2502170; Fax: +255 26 2502078; Email: ras@singida.go.tz
57	Babati Water Supply and Sewerage Authority	P.O Box 245, Babati; Email: suwasark@yahoo.com
58	Babati District Council	P.O Box 400, Babati; Tel: +255 27 2531055
59	Babati Town Council	P.O Box 383, Babati; Tel: +255 27 2530565
60	Regional Administrative Secretary (RAS), Manyara	P.O Box 310, Babati; Tel: +255 27 2510060; Email: rasmanyara@manyara.go.tz
61	Singida Municipal Council	P.O Box 236, Singida; Tel: +255 26 2502206
62	Singida District Council	P.O Box 27, Singida; Tel: +255 26 2502237
63	Singida Water Supply and Sewerage Authority	P.O Box 174, Singida; Tel: +255 26 2502122
64	Kibaha Town Council	P.O Box 30112, Kibaha; Tel: +255 23 2402938; Fax: +255 23 240

		2007; Email: td@Kibahatc.go.tz
65	Kibaha Education Centre	P.O Box 30054, Kibaha; Tel: +255 23 240 2282
66	Tanzania Ports Authority – Tanga Port	P.O Box 443, Tanga; Tel: +255 27 2643078; Fax: +255 27 2642360; Email: pmtanga@tanzaniaports.com
67	Muheza District Council	P. O Box 20, Tanga; Tel: +255 27 264 7303
68	Regional Administrative Secretary (RAS), Tanga	P.O Box 5095, Tanga; Tel: +255 27 264 7752; Email: rastanga@pmoralg.go.tz
69	Korogwe Town Council	P.O Box 615, Korogwe; Tel: +255 27 2640705
70	Korogwe District Council	P.O Box 584, Korogwe; Tel: +255 27 26 50017; Fax: +255 27 2650070; Email: korogwedc@yahoo.co.uk.
71	Procurement and Supplies Professionals and Technicians Board	P.O Box 5993, Dar; Tel: +255 22 2865860; Fax: +255 222862138; Email: info@psptb.go.tz
72	Tanzania Electrical and Mechanical Supplies Authority (TEMESA)	P.O Box Dar; Email: info@temesa.go.tz
73	Medical Stores Department (MSD) HQs	P. O Box 9081, Dar; Tel: +255 22 2860890-7; Fax:+255 22 2865814; Email: info@msd.go.tz
74	Ministry of Health and Social Welfare	P.O Box 9083, Dar; Tel: +255 22 2120261; Fax: +255 22 2138060
75	Morogoro District Council	P.O Box 1880, Morogoro; Tel: +255 23 261 318; Email: morogorodc@gmail.com
76	Masasi Town Council	P.O Box 447, Masasi; Tel: +255 23 2510685; Email: info@masasitc.go.tz
77	Masasi District Council	P.O Box 60, Masasi; Tel: +255 23 2510031; Email: ded@masasi.go.tz

78	Nachingwea Town Council	P.O Box 291, Nachingwea; Tel: +255 732 933112; Email:dednacinwea@lindi.go.tz
79	Mtwara District Council	P.O Box 528, Mtwara; Tel: +255 23 2333928; Email: mtwaradc@mtwara.go.tz
80	Mtwara Municipal Council	P.O Box 92, Mtwara, Tel: +255 23 2333102
81	Tanzania Building Agency (TBA)	P.O Box 9542, Dar; Tel: +255 22 2122163, Fax: +255 22 2114143; Email: ce@tba.go.tz
82	Tanzania Commission for AIDS (TACAIDS)	P.O Box Dar, Tel: 255 22 2122651; Email: ec@tac aids.go.tz
83	Mkinga District Council	P.O Box 6005, Tanga; Tel: +255 27 2977200; Fax: +255 27 2977200; Email: info@mkingadc.go.tz
84	Pangani District Council	P. O Box 89, Pangani; Tel: +255 27 2630058; Fax: +255 27 2630058; Email: ded@panganidc.go.tz
85	Tanga City Council	P.O Box 178, Tanga; Tel: +255 27 2642444
86	Tanga Urban Water Supply and Sewerage Authority	P.O Box 5011, Tanga; Tel: +255 27 2644626
87	Government Procurement Services Agency (GPSA)	P.O Box 9150, Dar; Tel: 255 22 2861617; Fax: +255 22 2866072; Email: ceo@gpsa.go.tz
88	Nanyumbu District Council	P.O Box 246, Masasi; Tel; +255 23 2934112; Fax: +255 23 2934114;Email: info@nanyumbu.go.tz
89	Tanzania Airports Authority (TAA)	P.O Box 1800, Dar; Tel: +255 22 282402
90	Bagamoyo District Council	P.O Box 31285, Dar; Tel: +255 22 75 4000601
91	National Examinations Council of Tanzania (NECTA)	P.O Box 2624, Dar; Tel: +255 22 2700499; Email: esnecta@necta.go.tz
92	National College of Tourism	P.O Box 9181, Dar; Tel: +255 22

		2125901; Email: ceo@nct.ac.tz
93	Tanzania Commission for Science and Technology (COSTECH)	P.O Box 4302, Dar; Fax: +255 22 2927551; Email: info@costech.or.tz
94	Sokoine University of Agriculture	P.O Box 3151, Morogoro; Tel: +255 23 2603511
95	Dodoma Municipal Council	P. O Box 1249, Dodoma; Tel: +255 26 264 1673
96	Kibaha District Council	P.O Box 30153, Kibaha; Tel: +255 23 240 02230
97	National Institute of Transportation (NIT)	P.O Box 705, Dar; Tel: +255 22 244 3149; Email: info@nit.ac.tz
98	Surface and Marine Transport Authority (SUMATRA), D'Salaam	P.O Box 3093, Dar; Tel: +255 22 211 6697
99	Energy and Water Utilities Authority (EWURA), D'Salaam	P.O Box 72175, Dar; tel: +255 22 292 3513-8; Email: info@ewura.go.tz
100	Fair Competition Commission.	P.O Box 7883, Dar; Tel: +255 22 2926128-31; Email: info@competition.or.tz

Appendix IV: Introduction Letter

**JOMO KENYATTA UNIVERSITY
OF
AGRICULTURE AND TECHNOLOGY
JKUAT MOMBASA CAMPUS**

Telegrams "Thika"
Tel: 041 2006404, (067) 52259
Email: jkuatmombasa@jkuat.ac.ke

OFFICE OF THE DIRECTOR
MOMBASA CAMPUS
P. O. BOX 81310-80100
MOMBASA

REF. JKU/MSA/ACA/07/07

26/08/2014

TO WHOM IT MAY CONCERN

SUBJECT: NOEL PETER MROPE REG. NO. HD433-C005-2798/2011

This is to confirm that the above named is a bonafide student of Doctor of Philosophy – Business Administration in this campus. He is expected to collect research data in your organization. His reasearch is titled: **DETERMINANTS OF PERFORMANCE OF PROCUREMEMNT DEPARTMENTS IN PUBLIC PROCURING ENTITIES IN TANZANIA.**

Any assistance given to him where this information might be required will highly be appreciated.



**AGGREY WANYAMA
AG. DEPPUTY REGISTRAR.**

23 AUG 2014



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