

**FACTORS AFFECTING PERFORMANCE OF THE PROCUREMENT AND
DISPOSAL UNIT (PDU) IN THE UGANDA NATIONAL AGRICULTURAL
RESEARCH ORGANISATION (NARO)**

By

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DECLARATION

I, Julius Emaru, declare that, to the best of my knowledge, this dissertation is as a result of my own efforts, and has never been submitted for any academic award to this university, or any other university or institution.

Signature: Date:

APPROVAL

This research was carried out under my supervision on the topic: ‘Factors Affecting Performance of the Procurement and Disposal Unit (PDU) in the Uganda National Agricultural Research Organization (NARO)’, and is now hereby ready for submission to the Academic Board of Uganda Technology and Management University (UTAMU).

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Signature: Date:

DEDICATION

I dedicate this dissertation to my beloved father, Mzee William Agobe and my mother, Regina Amado, wife Angella Akello, uncle James Ebitu, brothers Simon Ocen, Francis Agobe, David Ejuku, Vincent Olel and sisters Grace Anyait, Rose Atai, Catherine Ariokot, Betty Alupo and Beatrice Akenyo, Children Brian Ocen, Martha Ajuro, Cornelius Agobe, Timothy Emaru and Michelle Atim, who have laid for me an academic foundation that has led me to this level. Lastly, to all my friends for their motivation and developmental ideas

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LIST OF ABBREVIATIONS

EPP	Environmentally Preferred Purchasing
EU	European Union
GDP	Gross Domestic Product
GoU	Government of Uganda
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
MDG	Millennium Development Goals
NAPs	National Action Plans
OECD	Organization for Economic Co-Operation and Development
PDU	Procurement and Disposal Unit
PPDGM	Public Procurement and Disposal General Manual
PPOA	Public Procurement Oversight Authority
REPA	Resource and Environmental Profile Analysis
SMEs	Small to Medium Enterprises

ABSTRACT

This study examined the factors affecting performance of the Procurement and Disposal Unit (PDU) in the Uganda National Agricultural Research Organization (NARO). The study sought to investigate the relationship between procurement planning and performance of the PDU, establish the relationship between contract management and performance of the PDU, examine the effect of adequacy of resources on the performance of the PDU and to analyze the relationship between professionalism and competences of the procurement staff and performance of the PDU at NARO. The study employed a sample size of 125 respondents. The results revealed that 61% of the respondents indicated that procurement plans in the PDU impacted positively on performance of PDU while the rest (39%) indicated that the procurement plans did not affect performance. Some respondents (71%) indicated that contract management influences performance of PDU to a great extent and that contract management entails appointment of contract manager, contract implementation plan, contract administration, monitoring and payment. Forty-two per cent of the respondents indicated that there were delays in payments to suppliers and this affected greatly their service delivery. Forty per cent indicated that there was lack of proper controls in management of contracts, and that the user was left alone to manage and monitor contracts; 63% of the respondents indicated that the funds allocated to the departments of procurement were largely inadequate with the rest, 37%, indicating that they were adequate. Professionalism and competence of employees should be promoted and work ethics should be observed in all procurement departments as a fundamental in the success of any organization's performance.

CHAPTER ONE

INTRODUCTION

1.1. Introduction

This study sought to investigate the factors affecting the performance of the procurement and disposal unit (PDU) at the Uganda National Agricultural Research Organization (NARO). The procurement disposal units of public entities in Uganda are faced with the problems of not complying with the procedures and are therefore unable to determine their efficiency and effectiveness. This introductory chapter discusses the background, the statement of the problem, purpose of the study, the specific objectives of the study, research questions, hypotheses of the study, conceptual framework, the significance of the study, justification of the study, scope of the study, and operational definitions of terms and concepts.

1.2. Background of the study

1.2.1. Historical background

The World Bank (2011:102) approximates that of the world's total annual expenditure, 75 per cent (equivalent to five trillion United States dollars) goes towards procurement-related activities. Aketch (2013:9) recently argued that public procurement plays a significant role in the generation of a country's wealth since it accounts for approximately 16% of most countries' GDPs. Agaba and Shipman (2008: 11) examined spending levels in Sub-Saharan Africa and found that they ranged between US\$ 30 and 43 billion towards the procurement market. They counselled that because of the size of these budgetary allocations to procurement activities, well-functioning public procurement systems in the region are needed in order to monitor and make certain that resources allocated to procurement units are properly expensed. They established that the total expenditure in the region was at 40% compared to the global average of 12-20%.

Increasingly, the public demanded good governance, proper monitoring and evaluation of public funds as well as total compliance to the laid laws and guidelines (NTPA, 2013:5). Quite surprisingly, the United States of America, the world's largest public purchaser with over \$200 billion procurement budget and over 21% of the amount involving small and micro businesses, has been rocked with endless protests in its public procurement contracts management forcing the government to keep reviewing its procurement regulations to redress the public grievances.

When we look at the procurement sector regionally, for example in Kenya, the Public Procurement Oversight Authority found out that the public procurement system has been undergoing transformation consistent with the global trend since the mid-1990s (RoK, 2010:11). Owegi and Aligula (2006:13) argued that prior to these reforms; the legal framework governing public procurement was very amorphous, providing a conducive environment for the perpetration of various ill practices in public procurement, including the endemic corruption that characterized the system. Indeed, the Kenya Education Staff Institute (KESI) states that procurement of goods and services in the public sector has been a very sensitive issue world over because procurement involves huge amounts of public money (RoK, 2011:36). As a result, several cases have been reported touching on irregularities and loss of public resources through procurement.

Karanu (2014:7) observed that, with the increase in allocation of public funds to procurement activities, governments in developing countries have fast-tracked structuring of procurement regulations aimed at shifting the procurement function from a clerical non-strategic unit to an effective socio-economic unit that is able to influence decisions and add value. He however concurs with RoK (2011:56), as in the previous paragraph, that although many countries have reformed their public procurement regulations, most of them, especially developing countries, are still facing a

problem of rapid changes in procurement requirements. In the same regard, PPDA (2012:5) revealed that while Uganda has been a leader in Africa in the implementation of public procurement reforms which started in 1997 and led to the enactment of a procurement law in 2003 (PPDA Act of 2003), the Government still loses in excess of UGX 300 billion annually, in poorly managed procurement processes (Eyaa & Oluka, 2011:25).

1.2.2. Theoretical background

Two different theoretical approaches have been commonly used in literature to offer insights regarding environmental issues: Institutional theory and the resource-based view of the company (RBV). While both theories make important explanatory contributions in their own right, they focus on different domains of organizational action. Institutional theory acknowledges the role of external forces in shaping organizational activities and emphasizes the importance of legitimacy.

A central tenet of institutional theory (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; Scott, 1995) suggests that institutional pressures lead organizations to adopt similar structures, strategies, and processes. In order to reduce environmental uncertainty and conform to social expectations, companies imitate practices used by other organizations (DiMaggio and Powell, 1983; Haveman, 1993). In turn, companies gain social support as legitimacy is endorsed by institutional actors (Deephouse, 1996; DiMaggio and Powell, 1983). According to this perspective, companies adopt similar practices to avoid the pitfalls of newness (Aldrich and Fiol, 1994; Singh, Tucker, and House, 1984)

Contemporary institutional theory has captured the attention of a wide range of scholars across the social sciences and is employed to examine systems ranging from micro interpersonal interactions to macro global frameworks. Institutional theory attends to the deeper and more resilient aspects of

social structure. It considers the processes by which structures, including schemas; rules, norms, and routines, become established as authoritative guidelines for social behaviour. It inquires into how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse (Scott 2004b).

DiMaggio and Powell (2012:20) assert that the institutional environment strongly influences the development of formal structures in an organization, often more profoundly than market pressures. Innovative structures that improve technical efficiency in early-adopting organizations are legitimized in the environment for processes like procurement and finance. Ultimately these innovations reach a level of legitimization where failure to adopt them is seen as irrational and negligent. In the wake of the latter scenario, new and existing organizations adopt the structural form regardless of its contribution to organizational performance (Eyaa et al, 2011:12).

Under this theory, institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life. The theory states that the regulatory pillar emphasizes use of rules, laws and sanctions as enforcement mechanisms with expediency as a basis of compliance, the normative pillar refers to norms and values, social obligation being the basis of compliance while the cultural-cognitive pillar rests on shared understanding. In Uganda, public procurement is guided by the PPDA Act (2003), treasury circulars, guidelines, and PPDA regulations. This in essence facilitates the process of service delivery to Ugandans, whenever the services are needed, and fosters technical efficiency of personnel concerned with carrying out these functions.

The theory provides for sanctions against social malpractices. Corruption in procurement, which engenders bad choices, affects the efficiency of public spending and donors' resources, and creates waste of resources. Nevertheless, the designated bodies that set up these regulative mechanisms must ensure that the public servants are motivated, hold positive attitudes and willingness to effectively provide the public with good quality services.

DiMaggio and Powell (2012:16), assert that the net effect of institutional performance is a function of the homogeneity of organizational planning and management structures in an institutional environment. They add that the rate of institutional isomorphism is increased when organizations are highly dependent on the efficiency and effectiveness of the institutional environment. Kabaj (2003:25) contends that an efficient public procurement system is vital to the advancement of African countries and is a concrete expression of their national commitments to making the best possible use of public resources. Equally, Kakwezi and Nyeko (2010:56) argue that the procurement and disposal units of public entities in Uganda are faced with the problem of not complying with procurement procedures and regulations and are therefore unable to determine their efficiency and effectiveness. This implies that such a problem requires the establishment of clear procurement procedures and performance standards. Performance standards, when adopted, can provide the decision-makers in the procurement department with unbiased and objective information regarding the performance of the procurement function.

Rotich (2011:28) admits that the evaluation or measurement of procurement performance has always been a vexing problem for procurement professionals. He asserts that traditionally, firms concentrate on analyzing their own internal trends, which does not portray the true picture on how they compare well with competitors. Such an approach ignores what the competitors are doing. Lenders (1997:40)

reveals that a firm does not wish to make known to its competitors how or what it is doing for obvious competitive reasons. This has been the case in the public sector where procuring entities have not been making available their procurement data due to the sensitive nature of the data. On the other hand, Baquero (2005:23) argues that traditional government contracts worldwide have tended to focus on inputs rather than outputs. He suggests that the focus should instead be on what projects can deliver rather than how much the project costs, which calls for high level of performance management in the entire process.

Sound public procurement policies and practices are among the essential elements of good governance (KIPPRA, 2006:14). Otieno (2004:26) notes the irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated. According to Thai (2001:20), the basic principles of good procurement practice include accountability, where effective mechanisms must be in place in order to enable procuring entities spend the limited resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are justifiable reasons for single sourcing; and consistency, which emphasizes the equal treatment of all bidders irrespective of race, nationality or political affiliation. More still, the Procurement practice should be responsive to aspirations, expectations and needs of the target society. Finally, there is need for transparency to enhance openness and clarity on procurement policy and its delivery (World Bank, 2003:34).

1.2.3. Conceptual background

The key terms in the conceptual framework that informs this study are: Performance and Procurement planning, contract management, resource allocation and professionalism of the work

force. Performance in this study was used to imply an observable change. According to Mathis and Jackson (2009: 119), performance is associated with quality of output and timeliness of output, presence/attendance on the job, efficiency and effectiveness of the work completed. The Business Dictionary (2010, online), however, defines performance as an accomplishment of a given task measured against pre-set standards of accuracy, completeness, cost and speed. Employee performance is normally looked at in terms of outcomes.

Procurement, in essence, engirdles the whole process of acquiring goods and services. Organizations identify their needs and then decide on the procurement procedures. Procurement also extends to the ultimate disposal of property at the end of its useful life (Out-law, 2013:15). Out-law on the other hand, defines procurement planning as the process of deciding what to buy, when and from what source whilst contract management encircles administrative activities associated with handling of contracts, such as invitation to bid, bid evaluation, award of contract, contract implementation, measurement of work completed and computation of payments.

There cannot be a good procurement budget without a plan, and there can be no procurement without a budget to fund it. Planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today. Procurement must take a thoroughly professional view of its role in business as a whole and that must include planning (Nzau, 2014:10).

Contract Management, according to the PPDA Act (2003) refers to the administrative activities associated with handling of contracts, such as appointment of the contract manager, contract implementation plan, quality assurance. contract administration, monitoring and payment and close out. Incorporating necessary changes or modifications in the contract, ensuring both parties meet or

exceed each other's expectations and actively interacting with the contractor to achieve the contract's objective. Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs, the potential for manipulation of contract awards and lack of fair competition, all of which influence the procurement process and performance negatively (Karanu, 2014:5).

Musau, (2015:4) suggested that competitive advantage can be achieved through resources that are valuable, rare, inimitable, and cannot be substituted. Organizations with high levels of internal integration processes and resources are more likely to adopt new procurement practices. The practice of procurement is therefore related to the resources within an organization. This explains the huge disparities in the practice of standard procurement between the developing and the developed countries (Karanu, 2014:4).

Many procurement activities suffer from neglect, lack of direction, poor co-ordination and most importantly not having a cadre of trained and qualified procurement specialists, who are competent to conduct and manage such procurements, in a professional, timely and cost-effective manner (Karanu, 2014:3). Nzau (2014:2) reported that the loss of key staff competences may have negative consequences on the competitiveness of a company and on its productivity and efficiency. The preservation and development of staff competences are critical issues to these companies. Competences are a part of the company's intangible resources. Intangible resources and people-based skills are pointed out as strategically important resources for gaining a sustainable competitive advantage.

Kiragu (2013:3) found that entirely different factors were related to the employees' feelings about their jobs. For instance, those who stated they were not satisfied because their jobs were lowly-paid

would not necessarily identify high pay as a cause of satisfaction and motivation. Those people instead claimed that factors such as recognition or achievement were some of the main causes of job satisfaction and motivation. Thirty-four per cent of the respondents indicated that the procurement staff had the necessary skills and experience to carry out procurements effectively and that the staff competences influence performance of PDU to a large extent. The commitment of the employees highly depends on their motivation and job satisfaction. There are various motivation factors that can be used by various firms to enhance their employees' job satisfaction: recognition, working environment, bonuses and job security.

Purchasing performance is considered to be the result of two elements: purchasing effectiveness and purchasing efficiency. Performance provides the basis for an organization to assess how well it is progressing towards its predetermined objectives, identifies areas of strengths and weaknesses and decides on future initiatives with the goal of how to initiate performance improvements. This means that purchasing performance is not an end in itself but a means to effective and efficient control and monitoring of the purchasing function Kiragu, (2013:4). Performance Procurement can enable an organization to build and sustain its competitive advantage through innovation and developing new products and services. This occurs when the firm invests in research and development to come up with practices and technologies that are both environmentally and socially friendly. Such capabilities enable a firm not only to improve its efficiency but also to respond quickly to external forces. A firm with the ability to implement procurement practices can easily handle the legal and environmental requirements in the/business environment (Chepkwony, 2010:5).

1.2.4. Contextual background

In Africa, many public sector organizations view effective implementation of procurement practices as an add-on or an approach that costs more. According to Victor (2012:15), procurement expenditure could be minimized through proper implementation of procurement practices. One of the unprofessional constraints that Ugandan institutions face is unprofessional procurement practices which can be explained by the fact that focus on procurement in the public sector in Uganda, where it is regulated by the Public Procurement and Disposal of Public Assets Authority (PPDA). Procurement in the private sector on the other hand, is unregulated. Given that procurement is a vital aspect of supply chains, it is possible that the poor performance is explained by the procurement practices. According to Carr (1996:24), the components of procurement practices are purchasing risk taking and purchasing knowledge and skills (Carr, 1996:23). A number of studies have been undertaken in Uganda but none specifically addresses the impact of the components of procurement practices on supply chain performance. Okello et al. (2008:8) studied the impact of information access on the performance of the PDU in Northern Uganda. Ntayi and Eyaa (2010:20) studied the relationship between procurement practices, collaborative relationships and supply chain performance. Little is known about the procurement practices of PDU in developing countries (Giunipero and Flint, 2001:10), specifically Uganda. According to Carr (1996), the constructs of procurement practices are strategic procurement, procurement risk taking and procurement knowledge and skills. Strategic procurement involves planning, evaluating, implementing, and controlling the operational activities of the purchasing function in an effort to meet the objectives of the organization (Carr and Smeltzer, 1997:20). Strategic procurement ensures that the organization has a strategic procurement plan; strategies are developed to realize the plan and are often reviewed in order to take into account changes in the strategic plan of the organization. In East Africa, Kenya

suffered a ban from the World Bank in the year 2006 because approximately Kenya shillings 500 billion had been lost due to corruption in procurement related scandals. NARO (2015:87) established that the main challenges faced by the stakeholders in the procurement process include inadequate understanding of the roles of stakeholders in the procurement process, principles of public procurement, procurement planning and developing statements of requirements. Indeed, the OAG (2013: 62) annual budget performance report for the financial year 2012/13 established that wage and non-wage components under NARO performed at 117% and 103. This study however focused specifically on explaining performance of PDU using the components of procurement practices in order to provide a new viewpoint from which we can explain performance. The performance of PDU is an area of concern in any economy because they play a very key role to the economies of most emerging nations from the viewpoint of generating employment and economic growth as well as providing support services to large public entities.

1.3. Statement of the problem

The procurement function has become increasingly important over the past decades since procurement and supply has become a major determinant of corporate success. Indeed in Uganda, enactment of the Public Procurement and Disposal Act PPDA (2003) and the Regulations of 2014 are some of the reforms that were meant to promote efficiency, effectiveness, accountability and value for money in public procurement. NARO in the recent past equipped the PDU with some resources, improved its contract management policies and recruited qualified, experienced and skilled staff and in addition offered training opportunities to user departments particularly on procurement procedures. All this was intended to improve on the performance of the procurement unit at NARO. In spite of all the above, PPDA in its procurement audit of NARO 2013-2014 revealed that the PDU does not follow the right procurement procedures, regulations and they are

unable to determine their efficiency and effectiveness. The PDU still suffers from poor performance characterized by noncompliance with the Act, lack of policy on procurements, overspending, poor planning, poor contracts monitoring, need for more transparency and accountability, addressing collusion in the tender evaluation and award, inadequate training of the procurement officers, especially on the technical fields .This affects the overall performance of the PDU at NARO. This study therefore sought to highlight the factors affecting the performance of PDU at NARO

1.4 Purpose of the study

The purpose of this study was to investigate the factors affecting the performance of the Procurement and Disposal Unit (PDU) at the National Agricultural Research Organization (NARO).

1.5 Objectives of the study

- a. To investigate the relationship between procurement planning and performance of the procurement and disposal unit at NARO
- b. To establish the relationship between contract management and performance of the procurement and disposal unit at NARO
- c. To examine the effect of adequacy of resources on the performance of the procurement and disposal unit at NARO
- d. To analyze the relationship between professionalism and competencies of the procurement staff and performance of the procurement and disposal unit at NARO.

1.6 Research questions

- a. What is the relationship between procurement planning and performance of the procurement and disposal unit at NARO?

- b. What is the relationship between contract management and performance of the procurement and disposal unit at NARO?
- c. To what extent does adequacy of resources affect the performance of the procurement and disposal unit at NARO?
- d. How does professionalism and competencies of the procurement staff affect performance of the procurement and disposal unit at NARO?

1.7 Hypotheses of the study

- a. Procurement planning positively affects the performance of the procurement and disposal unit at NARO.
- b. Poor contract management significantly affects performance of the procurement and disposal unit at NARO negatively.
- c. Inadequacy of resources significantly affects the performance of the procurement and disposal unit at NARO negatively.
- d. Competence and professionalism of the procurement staff affects performance of the procurement and disposal unit at NARO.

1.8 Significance of the study

The findings from the study are expected to empower the procurement and disposal staff to evaluate some of the policies governing procurement and disposal and gauge whether they are generating the intended results. This in the long term will provide such users a base on which to modify these policies to suit the demands of the different stakeholders, hence improving the performance of the procurement and asset disposal unit at NARO. The study intends to aid the Central Government to body out the different avenues it can take up as a measure to enhance and increase procurement performance levels in all statutory entities. The research findings and analysis are of great

significance to those who purpose to do further research on this topic. This research is also expected to add to the current literature.

1.9 Justification of the study.

This research study is necessary to assess if staff in procurement in government agencies are executing their duties as intended. The study is relevant because it will enable the Central Government and the public to effectively monitor and appraise procurement performance of government agencies on the basis of statutory procurement recommendations and guidelines.

1.10 Scope of the study

1.10.1 Geographical Scope

The research study was carried out across the country, in the different agro-ecological zones of Uganda, at the National Agricultural Research Organization (NARO) zonal institutes and secretariat.

1.10.2 Time scope

The period between 2013 and 2016 was considered, when performance of procurement and disposal units within NARO were put on the spot due to poor performance.

1.10.3 Context scope

This research focused on the Procurement and Disposal Unit at NARO. This study was to specifically examine the factors that affect the performance of procurement and disposal units ranging from procurement planning, contract management, resource allocation and professionalism of the work force.

1.11. Operational definitions

Contract Management

Administrative activities associated with handling of contracts, such as invitation to bid, bid evaluation, award of contract, contract implementation, measurement of work completed and computation of payments. It also includes monitoring contract relationship, addressing related problems, incorporating necessary changes or modifications in the contract, ensuring both parties meet or exceed each other's expectations and actively interacting with the contractor to achieve the contract's objective.

Effectiveness

This is the degree to which something is successful in producing a desired result -- success.

Efficiency

The state or quality of being efficient, or able to accomplish something with the least waste of time, effort and resources.

Procurement

This is the act of obtaining or buying goods and services. The process includes preparation and processing of a demand as well as the end receipt and approval of payment. It often involves purchase planning, standards determination, specifications development, supplier research and selection, value analysis, financing, price negotiation, making the purchase, supply contract administration, inventory control and stores and disposals and other related functions.

Procurement Cycle

These are series of steps that must take place to supply a production line or to replenish stock in a distribution centre. Identifying the items that must be procured and determining the necessary quantities is the first step. This information is used to generate a requisition, which is used to generate a requisition, which is sent to the purchasing department. The assigned buyer requests bids and awards the purchasing department. The assigned buyer requests bids and awards the purchase order to a vendor. When the ordered items arrive, they are entered into the inventory system.

Procurement Planning

Procurement planning is the process of deciding what to buy, when and from what source. During the procurement planning process, the procurement method is assigned and the expectations for fulfillment of procurement requirements determined.

Professional Ethics

These are professionally accepted standards of personal and business behavior, values and guiding principles.

Public Procurement

This is the buying of goods and services by government organizations. It involves the acquisition of goods, services and works by government entities using tax payer's money.

Purposive Sampling

Purposive sampling, also known as judgmental, selective or subjective sampling, is a type of non-probability sampling techniques. It focuses on sampling techniques where the units that are investigated are based on the judgment of the researcher.

Staff Competence

This is the ability of staff to do their specific job allocations properly.

Supply Chain Management

This is the management of material and information flow in a supply chain to provide the highest degree of customer satisfaction at the lowest possible cost. It requires the commitment of supply chain partners to work closely to coordinate order generation, order taking, and order fulfilment. They thereby create an extended enterprise spreading far beyond the producer.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of available literature related to the factors influencing performance of the procurement function in an organization. The purpose of the literature review was to create a deeper understanding of the issues under research. It documents related works done by other researchers in reports, textbooks, online publications and journals, among others, in the order of theoretical review, conceptual review/conceptual framework and actual literature review objectively while focusing on the selected dimensions or/and indicators. The actual literature is preceded by a review of the theoretical issues.

2.2 Theoretical review

2.2.1 Institutional Theory

This study adopted the institutional theory. Under this theory, institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life. The theory states that the regulatory pillar emphasizes use of rules, laws and sanctions as an enforcement mechanism with expediency as a basis of compliance, the normative pillar refers to norms and values, social obligation being the basis of compliance while the cultural-cognitive pillar rests on shared understanding. Eyaa *et al* (2011:12) observed that there is no single universal agreed definition of institution or institutional theory. Accordingly, institutions are composed of cultural-cognitive and regulative elements that, together with associated activities and resources give meaning to life.

The first of the major approaches to institutional analysis is the normative approach advocated by March and Olsen (2010:33). They argue that the best way to understand organizational management structural behaviour (seemingly both individual and collective) is through a logic of appropriateness that individuals acquire through their membership in institutions. They contrast this normative logic with the logic of consequentiality that is central to rational choice theories. That is, March and Olsen argue that professionals functioning within institutions behave as they do because of normative standards rather than because of their desire to maximize individual utilities and resources available to the organization. Further, these standards of behaviour are acquired through involvement with one or more institutions and the institutions are the major social repositories of values.

Although March and Olsen (2010:33) might find it difficult to accept, there is also a rational choice version of institutionalism; in fact there are several variations on this general theme. The underlying logic of rational choice institutionalism is that institutions are arrangements of rules, procedures and incentives, and the employees of the institutions behave in response to those basic components of institutional structure. Unlike individuals in normative institutionalism the preferences of the occupants of these structures do not have their preferences modified by their association with the institution. Rather, the individuals who interact with the institutions have their own well-ordered sets of preferences that remain largely unchanged by any institutional involvement they may have.

Historical institutionalism is the third of the approaches to be discussed in this study. The argument of this approach is that the policy and structural choices about management decisions on planning and allocation of resources and deciding who to hire for a particular assignment ranging from accountancy, procurement to asset disposal made at the inception of the institution will have a persistent influence over its behaviour for the remainder of its existence (Crubellate, 2007). This idea

of path dependency is the central explanatory principle for the historical institutionalisms, although they are also very interested in the ideas that help to shape and to sustain the directions of policy. This approach is obviously well-suited to explaining the persistence of policies about organizational core activities such as planning and allocation of resources, human capital and resource acquisition but is much less promising as a means of explaining change in policies or structures (Peters, 2000:9).

The final version of institutionalism discussed here is termed empirical institutionalism. This term is employed to describe a body of literature that asks the deceptively simple question of whether institutions make any difference in policy choices, or in management stability. The definition of institutions utilized in this literature is rather a common sense one, emphasizing the formal structures of organizational management. In particular, this literature has focused on the differences between board decisions and mid-management level decisions (Weaver and Rockman, 1993; Von Mettenheim, (1996). This is a very old debate in organizational hierarchy debates, but the institutionalism discussion has elaborated the discussion and demonstrated its possibilities for theoretical development.

2.2.2 Underlying problems with the theory

All the above about aspects of institutional theory having been said, there are some obvious theoretical problems in this literature. These problems arise because of the multiple understandings of what an institution is, and about the factors that shape behaviour within institutions vis-a-viz organizational performance. One central issue that arises here concerns the source of preferences, and the ways in which individuals and institutions interact in making decisions and forming judgments about good policies aimed at performance augmentation. On the one hand, March and Olsen (2010:26) argue vigorously that preferences are endogenous, based on the experiences of the

technical people within the institution. At the other end of an implicit spectrum the rational choice approach argues that preferences are exogenous, and do not change appreciably because of involvement with an institution.

2.2.3 Implications of the institutional theory

Based on the notion that formal structure can signal organizations' commitment to rational, efficient standards of organizing, and thus provide general social accounts, Meyer's (2007: 790) analysis specified three major implications of this notion. The first is that the adoption of formal structure can occur regardless of the existence of specific, immediate problems of coordination and control of members' activities that an organization may face. Organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work and institutionalized in society. Organizations that do so increase their legitimacy and their survival prospects, independent of the immediate efficacy of the acquired practices and procedures.

A second major implication pointed up in Meyer's (2007: 71) analysis is that the social evaluation of organizations, and hence organizational survival, can rest on observation of formal structures that may or may not actually function, rather than on observed outcomes related to actual task performance. Thus, organizational success depends on factors other than efficient coordination and control of production activities. Independent of their productive efficiency, organizations which exist in highly elaborated institutional environments and succeed in becoming isomorphic with these environments gain the legitimacy and resources needed to survive.

Finally, the third major implication derived by Meyer (2007: 72) was that the relationship between actual, everyday activities and behaviours of organizational members and formal structures may be negligible. Formal organizations are often loosely coupled, structural elements are only loosely

linked to each other and to activities, rules are often violated, decisions are often unimplemented, or if implemented have uncertain consequences, technologies are of problematic efficiency, and evaluation and inspection systems are subverted or rendered so vague as to provide little coordination.

2.2.4 Applicability of the Institutional Theory to the Performance of Core processes of Public Institutions

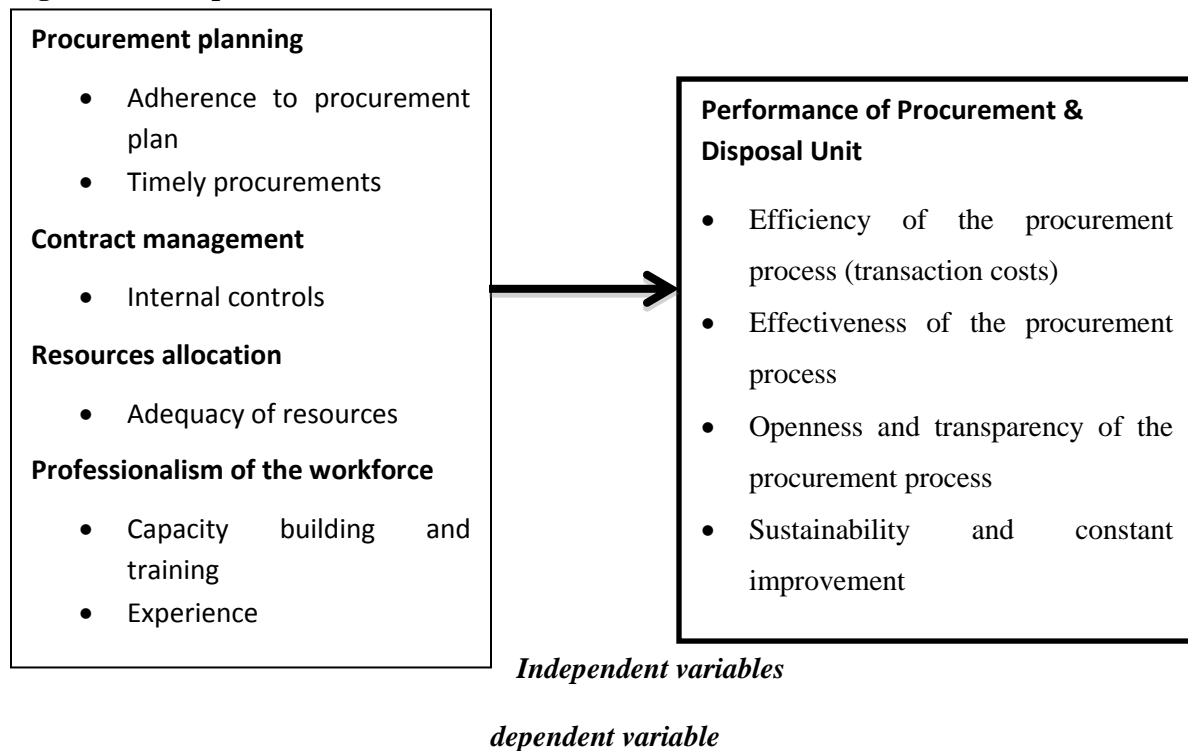
Institutional theories streams have become leading and widely shared references in public administration. Because they consider public institutions through three different lenses - as pillars of political order, as outcomes of societal values, and as self-constructed social systems - they offer exciting arenas for academic debates as well as providing pragmatic or architectonic principles (Thoenig, 2011:40). The theory makes a case for both international organizations (Schemeil, 2011:30) and for supra-national polities (March and Olsen, 2010:35) that methodological progress in terms of a less allusive set of evidence to trace relationships between cognitions and actions, or an in-depth understanding of the collateral effects generated by administrative reforms is key to sufficient organizational performance. The theory underscores the reconciling of performance requirements with political support by public opinion, making systematized production of regulations and norms expected for organizational management, financial, procurement, and research and development procedures compatible with democratic pluralism (Thoenig, 2011:40).

2.3 Conceptual Framework

Mugenda and Mugenda (2003:7) define conceptual framework as a concise description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. Rachel and Ramey (1987:57) define it as a set of broad ideas and principles taken from

relevant fields of enquiry and used to structure a subsequent presentation. It is a research tool intended to assist a study to develop awareness and understanding of the situation under scrutiny and to communicate the analysis of the dependent variable and its influence on the independent variables makes it possible to find answers to the research problem represented in form of a model known as a conceptual framework (Sekaran, 2009:11). It helps the reader to see at a glance the proposed relationships in the question and also to understand their significance in the given relationship. In this study to establish the factors that influence performance of the procurement and disposal unit at the Uganda National Agricultural Research Organization, procurement planning, allocation of resources, professionalism and competence of the procurement staff at NARO and contract management are the independent variables while performance of procurement and disposal unit is the dependent variable. The conceptual framework can be summarized in Figure 1 below:

Figure 1: Conceptual Framework



(Source: Adapted from Kaplan, 2005, and as moderated by the Researcher)

As depicted in Figure 1 above, the independent variable (IV) was hypothesized to influence Performance of PDU. The framework portrayed that procurement planning, contract management, resource allocation and professionalism of the workforce directly affected performance of procurement and disposal unit. On the other hand, performance of the PDU as the dependent variable (DV) was measured in terms of: Efficiency of the procurement process (transaction costs); Effectiveness of the procurement process; Openness and transparency of the procurement process; Sustainability and constant improvement, where efficiency is the ability to produce the desired outcomes by using as minimal resources as possible, and effectiveness is the ability of employees to meet the desired objectives or target (Stoner, 1996:30). Performance therefore was measured by the results (output/outcomes) that an organization produces as recommended by Kusek, Rist et al (2005:67). Therefore, the conceptual framework portrayed the relationship between organizational factors (IV) and performance of PDU (DV).

2.3.1 Procurement planning and Performance of PDU

Achieving efficiency in public procurement planning is an ambitious task, as procurement faces numerous challenges, especially due to the market structure, the legal framework and the political environment that procurers face. Poor procurement planning has been one of the major stumbling blocks to the economic development of Africa and it has been clear that a number of African countries have not paid adequate attention to the proper management of public resources (Basheka, 2004:25).

Procurement encompasses the whole process of acquiring property and/or services. It begins when an agency has identified a need and decided on its procurement requirement. Procurement continues through the processes of risk assessment, seeking and evaluating alternative solutions, contract

award, delivery of and payment for the property and/or services and, where relevant, the ongoing management of a contract and consideration of options related to the contract. Procurement also extends to the ultimate disposal of property at the end of its useful life (Waters, 2004:66). Sound public procurement policies and practices are among the essential elements of good governance (KIPPRA, 2006:17). Othieno (2004:25) notes the irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated.

According to Thai (2001:54), the basic principles of good procurement practice include accountability, where effective mechanisms must be in place in order to enable procuring entities spend the limited resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are convincing reasons for single sourcing; and consistency, which emphasizes the equal treatment of all bidders irrespective of race, nationality or political affiliation. The process should also uphold integrity by ensuring that there are no malpractices; informed decision-making, which requires public bodies to base decisions on accurate information and ensure that requirements are being met. More still, the Procurement practice should be responsive to aspirations, expectations and needs of the target society. Finally, there is need for transparency to enhance openness and clarity on procurement policy and its delivery (World Bank, 2003:18).

In Uganda the Public Procurement and Disposal of Public Assets (PPDA, 2003) Regulation 96(1) provides that a user department shall prepare a multi-annual, rolling work plan for procurement based on the approved budget, which was submitted to the Procurement and disposal unit to facilitate orderly execution of annual procurement activities. The procurement planning aspect in

this case has to exist for each level of planning in the free areas of technical and operational strategy Rotich, (2011:33).

Rotich further adds that procurement plans serve as road maps and their main goal should be to enable efficient use of available resources. The PPDA 2nd integrity survey (2011), however, reported that key constraints to expenditure on procurement included lack of clear procurement plans by some agencies of which NARO is part. Other constraints included failure to follow procurement plans and under-funding of the plans which further dampened the interests of the agencies and disorganized local and central government agencies' activity plans.

Nwabuzor (2005:12) describes a comprehensive procurement performance as a function of an all-inclusive procurement planning process that analyzes all the variables in a specific environment. In relation to the above discussion, the studies and theories have established the value of, cost estimation, quality specification and need assessment.

2.3.2 Contract Management and performance of PDU

When a contracting authority enters into a contract with an economic operator, the arrangement cannot just be left to run. It must be managed to enable both the contracting authority and the economic operator to meet their contractual obligations. Contracts are frequently complex, they may involve multiple actors, last a long time and may consume many resources. It is therefore vital that they are properly managed (SIGMA, 2011). In a survey covering a range of large countries to Small Island states, from Europe, Latin America to Asia, representing a variety of levels of economic development, including fragile and conflict affected only 58.8% of the countries had implemented or were in process of implementing reforms relating to a procurement manual, invoice processing, provisions for delegation of authority, mechanisms for Public Private Partnerships, and contract

administration procedures between 2003 and 2010 Strengthening Country Procurement Systems: Results and Opportunities Survey (2011).

Over the past few years, developing countries have been awakened on the importance of effective management of the public procurement process at both central and local government levels, and its subsequent contribution to improved governance of the public sector. Procurement; a function that was traditionally viewed as a clerical and reactive task has since positioned itself among core organizational functions, and its management is becoming increasingly critical for the well-functioning of any organization (Onyango, 2012:70). Kibogo (2014:45) reported that the Kenya government had been losing hundreds of millions of taxpayer's money through cancelled contracts, unfinished projects, poor service or product delivery, corruption and extended contract periods in the previous eight years without major improvement. Kibogo further stated that of the 10% – 30% of GDP spent by the government of Kenya on procurement alone, 5% is wasted due to lack of proper management of the contracts. As a result, the World Bank and the International Monetary Fund (IMF) had to intervene by putting in place stringent conditions for lending funds to the government which slowed down economic development by 2.1%.

Although the efficacy, functionality and versatility of the procurement system is a function of good governance, achieving effective procurement in Uganda is thus not possible without putting attention to good governance infrastructure. The PPDA 2nd integrity survey (2011) reported that up to 69.8% of service providers surveyed agreed that corruption influenced procurement and that acknowledgement of the presence of corruption was assented to by up to 81.1% of the service providers. The survey also highlighted the fact that whereas the National Public Procurement Integrity Baseline Survey (2006:33) found a percentage gratification of public officials of between

7-9%; the 2011 survey indicated that the majority of the service provider respondents had offered a bribe of between 10-20% of the contract value (33.3%) with a further 6.3% saying they paid over 20% for the contract awarded. Key informants also confirmed instances of procurement officers in key government agencies as allocating works to their relatives or cronies.

According to Gordon (2009:34) contract management style (CMS) could turn out to be one of the most important new business applications of the first decade of the 21st Century. (Bartels, 2009:55) further confirms that information technology is increasingly being applied to contract negotiation, executions and management to standardize, streamline and ensure contract and regulatory compliances and extend best practices and strategies for contract management across organizations. Maria's (2013:65) study established that, in contract management, the contract supply chain relationship provides a high-level framework to approach contracting as a business process. However, even the most carefully designed contracting process supported by sophisticated information technology will not succeed without capable contract management professionals (Maria, 2013:67). Thus organizations need to invest in developing the functional and interpersonal skills of the staff. The Kenya government (R.O.K, 2010:85) confirmed the importance of contract administration to the success of the contract and for the relationship between customer and provider should not be underestimated.

2.3.3 Resource Allocation and performance of PDU

Financial management in service organizations has been a constraint and an obstacle to other functions that contribute to service delivery (Adams and Colebourne, 1999:80). The KPMG International report (2006) reported that there was a major challenge in respect to public accountability and transparency when public resources are used to acquire goods and services by

public entities worldwide. Most of the public entities lacked clear accountability on how the resources provided impact on their performance, and hence went against the fundamental principles of public procurement (value for money spent, accountability, transparency and equity).

Onyango (2012:90) asserts that an efficient public procurement system is vital to the advancement of African countries and is a concrete expression of the national commitment to making the best possible use of public resources. He adds that funding for procurement is unlikely to be sufficient to meet all requirements, but emphasizes that the scarce financial resources must be allocated appropriately to meet the priority public services before less essential needs. Analyze in his views. Agreeably, Mamiro (2010:47) in his findings underscores these facts and concludes that one of the major setbacks in public procurement is poor procurement planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of skills of procurement staff responsible for procurement.

In many developing countries, governments do not have the financial and technical capacity to effectively exercise such oversight and control functions, track and report on allocation, disbursement and use of financial resources (Smee, 2002:38). Political and bureaucratic leakage, fraud, abuse and corrupt practices are likely to occur at every stage of the process as a result of poorly managed expenditure systems, lack of effective auditing and supervision, organisational deficiencies and lax fiscal controls over the flow of public funds (Peters, Elmendorf, Kandola and Chellaraj, 2000:89).

In Uganda, the PPDA Act (2003) maintains that purchases must be economical and efficient. This means that they should be based on market prices and should be able to generate saving. It also means that bad practices that have been reported in a number of government institutions such as

irresponsible procurement leading to wastage, wear and tear of stocks, over-invoicing, unplanned expenditure, shortage of goods when needed, poor quality products and similar factors must be avoided to enhance performance of the procurement entity, yet the effect of the planning of allocation of resources has not been established in public sector procurement performance (PPDA, 2011). Considering that most of the wastage of public resources and graft in public service has to do with one kind of procurement or the other, it is important that practical initiatives with the required political goodwill from government are conceptualized PPDA 2nd Integrity Survey (2011).

2.3.4 Professionalism of the workforce and performance of PDU

Competence is defined as a capability, ability or an underlying characteristic of an individual, which is casually related to effective or superior performance. For purposes of this study, competence is used to refer to applied knowledge and skills, performance delivery, and the behaviour required to get things done very well (Armstrong and Baron, 1995:67). Competences are divided into two categories; technical and behavioural competency. Public procurement professionals have to strive to achieve three competing demands of meeting commercial interests with key themes of value for money, economy, efficiency and effectiveness; the regulatory interests with key themes of competition, transparency, equality and compliance and the social interests whose key themes include public interest, employment concerns, social exclusion, economic development and environment policy (Errigde & McIlroy, 2002:79). In an effort to attain these demands, organizations constantly look for employees who have skills necessary to deal with the wide variety of tasks faced by purchasing professionals (Monczka et al, 1998:67). Procurement professionals need a set of flexible skills due to changing local government contexts. No single skill can be adequate to manage the procurement portfolio of great complexity in local government systems. Procurement tasks

demand professionals with high-level strategic, tactical as well as operational skills. These skills should potentially take a broader supply chain multi-disciplinary and integrative approach.

Although issues pertaining to competence and technical efficiency of procurement staff are often mentioned as being critical, in a survey covering a range of large countries to Small Island states, from Europe, Latin America to Asia, representing a variety of levels of economic development, including fragile and conflict-affected ones established that conditions of service for procurement staff and profiles for procurement jobs are among the areas where least has been done with 64.7% and 52.9%, respectively, having neither implemented or started reforms in these areas between 2003 and 2010 (Strengthening Country Procurement Systems: Results and Opportunities Survey, 2011).

Career competences are described as the individual characteristics of an employee that enable him/her to guide his/her functional and learning competences in the right direction (Kuijpers, 2003:7). Regardless of the effort by the governments of developing countries, like Kenya and development partners like the World Bank to improve performance of the procurement function, public procurement is still marred by shoddy works, poor quality goods and services (Basheka, 2008:12). Failure to implement or delayed implementation of recommended performance standards has resulted in unnecessarily high operation costs, uncoordinated business activities, and failure to attract and retain experienced and skilled personnel in the procurement positions, thus affecting the function's performance (The World Bank Country Procurement Assessment Report, 2009:8).

Rotich (2011:54) admits that the evaluation or measurement of procurement performance has always been a vexing problem for procurement professionals. He asserts that traditionally, firms concentrate on analyzing their own internal trends which does not portray the true picture on how they compare well with competitors. Such an approach ignores what the competitors are doing.

Lenders (1997:35) reveals that a firm does not wish to make known to its competitors how or what it is doing for obvious competitive reasons. This has been the case in the public sector where procuring entities have not been making available their procurement data due to the sensitive nature of the data.

2.3.5 Measuring Performance

According to Murray (2012) measuring purchasing performance is important as the purchasing department plays an everincreasingly important role in the supply chain in an economic downturn. A reduction in the cost of raw materials and services can allow companies to competitively market the price of their finished goods in order to win business. An obvious performance measure of the success of any purchasing department is the amount of money saved by the company. However, there are a number of performance measurements that businesses can use when they measure purchasing performance: these performance measurements typically revolve about efficiency and effectiveness

2.4 Empirical Studies

2.4.1 Globally perspective

Worldwide, governments are the biggest spenders and the figure varies from country to country (Csaba, 2006:5). There is increasing recognition that improving economic governance and fostering fiscal responsibility in emerging economies requires strengthening transparency and accountability in the management of public finances (Santiso, 2006:23). Thai (2011:25) in his study on showed how public procurement is a complicated function of government. He said public procurement requires interdisciplinary skills and knowledge (or multiple disciplines), including economics, political science, public administration, accounting, marketing, law, operations research,

engineering, and architecture, among others. He showed how impossible it is to integrate these disciplines into the public procurement knowledge (e.g., students/practitioners are not expected to become experts in engineering, architecture, law, budgeting and accounting, operations research, and economics through their public procurement training and education programmes).

According to Thai, a very important task of public procurement professionals is to communicate effectively with those professionals who are involved in procurement projects. But Ostrom (1999), argued it out that it is extremely difficult to achieve meaningful communication across these disciplines. Japheth (2013:50) in his study looked at four independent variables (planning, resource allocation, staff competency and contract management) which, according the study, contribute to 87.5% of the variations in procurement performance at the Ministry of Energy in Kenya. The researcher recommends further research to investigate the other factors that affect procurement performance.

Brammer and Walker (2007:56) researched on the sustainable procurement practice in the public sector in the UK. Financial constraints, the perception that sustainable products are expensive, lack of senior management support and the non-availability of sustainable products were some of the limitations to sustainable procurement which were identified by the researcher. Brammer and Walker (2007:45) concurred with Mensah and Ameyaw (2005:13) on the high costs associated with sustainable products as one of the barriers. In their conclusion, Brammer and Walker (2007:45) noted that both the cross-country variation in the sustainable procurement activities of organizations and the observation that legislative support for sustainable procurement is among the most frequently cited facilitators of sustainable procurement suggest that national and international policy environments regarding sustainable procurement are a primary determinant of the extent to which

organizations engage in sustainable procurement. Brammer and Walker (2007:47) recommended that the government needs to provide clear legislative and regulatory support for SP, and also to provide sufficient budgetary flexibility for organizations to make investments in SP that may be financially efficient only when viewed from a long-run perspective.

Ayaa (2011:33) explaining non-compliance in public procurement in Uganda focused her study on the Central Government Entities (CGEs) and left out the Local Government Entities (LGEs). In Uganda, public and disposing entities are classified into two groups, the Central Government Entities and the Local Government Entities. The findings of her study cannot be generalized to the LGEs, implying that there is need for a study examining compliance with procurement regulations in LGEs given that they operate in environments that are different from those of CGEs. Secondly, we note that compliance is a behaviour that is acquired over time and in order to examine its true nature, a longitudinal study is necessary. We therefore recommend a longitudinal study to examine compliance with public procurement regulations in the public entities. Public procurement is a function of government that is most prone to corruption, particularly in developing countries, where there is insufficient transparency and competition (Thai, 2008:66) and the findings of the study point to weaknesses that can lead to this phenomenon. Hellman and Kaufmann (2004:67) estimated that more than US\$1,000 billion is paid annually in bribes, and the volume of bribes exchanging hands for public sector procurement alone to roughly 200 billion dollars per year. This has made it a key area of public administration that demands attention by policy makers as well as academic researchers in all countries. Public procurement is a business process within a political system and it is inherently a politically sensitive activity, not least because it involves significant amounts of money (Schapper et al., 2006:78). Effective and efficient public procurement systems are essential for the realization of the millennium development goals (MDGs) and the promotion of sustainable

development, although the procurement systems in many developing countries have been weak and have served to squander scarce domestic and foreign resources (Development Assistance Committee, 2005)

2.4.2 African perspective

In trying to implement far-reaching procurement reforms, developing countries face particularly daunting challenges (Hunja, 2000:14). Effective and efficient procurement policies were regarded as essential for attaining government programmes and at a broader level they became an important dimension for assessing the performance of governments (Evernet and Hoekman, 2005:40). While the encouraging developments in the enforcement of public procurement rules were welcomed, the fact that serious problems still exist in this area could not be neglected (Tian, 2003:88). The perceived benefits of an effective procurement management regime cannot be overemphasized as it contributes to social-economic goals of a country (Thai, 2004:33). It results in more goods and services meeting the needs of the end users since they are obtained for less money and with speedier delivery (Arrowsmith and Trybus, 2003:12).

Boomsma (2009:35) researched on sustainable procurement in developing countries. The countries under study were Sierra Leone, Mali and South Africa. The research found that lack of technical and management capacity, cultural integration, funding for investment startups, early inclusion of small producers, transparency and equal distribution of power were some of the aspects cited as hindering sustainable procurement by the author. Boomsma (2009:35) concluded that sustainable sourcing needs multi stakeholder process, as well as the primary value chain actors, stakeholder researchers, government, support agencies, in order to be successfully implemented. The author further highlighted the need to create synergy among these stakeholders to manage conflicts and interests as

to ensure that all actors gain. Boomsma (2009:35) recommended that the three aspects of sustainability (efficiency, high quality and social responsibility) need to be considered in the structure of an organization and its supply chain in order to add the highest possible value to the chain. The public sector, support agencies and donors should actively and responsibly support this process. In poorly integrated chains, a facilitator may be needed to coordinate and mediate the process towards a fair chain partnership.

2.4.3 Procurement in Uganda

In Uganda, the implementation of the procurement reforms commenced in 2000 with the approval by cabinet. These reforms resulted into the establishment of the PPDA. This body was given the regulatory and oversight mandate to advise Government on matters relating to public procurement and disposal. One of its other mandates was to monitor compliance by central and local government entities to the provisions of the new legal and institutional procurement frameworks. To this effect, this report presents results of the compliance checks on 120 procuring and disposing entities (PDEs)

During the 1990s, a number of developing countries including Uganda embarked on procurement reforms with an objective of creating efficient and effective procurement systems. Procurement remained a big part of the developing countries' economy, accounting for an estimated 9%–13% of the developing nations GDP and it was therefore an area that needed attention since resources were not being used properly (Wittig, 1999:2).

In a comparative analysis of the economic and political determinants of procurement corruption in Uganda, Basheka (2009:15) found that economic factors explained procurement corruption more than the political factors. One explanation of this was argued to be the traditional domination of corruption studies by economists whose economic measures of corruption have been tested over

time. In some Government departments, failure to absorb Government funds and provision of the much needed social services has been blamed on the ‘cumbersome’ public procurement rules (Sabiiti & Muhumuza, 2012:36). In general, tactical procurement entails specification of goods, works and services, selecting and contracting of suppliers (Obanda, 2010:11).

From a clerical function, it is now considered a strategic core function of government with potential to contribute to the social and economic development outcomes. The area of public procurement needs its rightful place in facilitating the downstream and upstream activities. While each country has its own economic, social, cultural and political environment, public procurement professionals almost face the same challenges (Thai, 2004:25).

2.5 Synthesis and Gap analysis

A substantial amount of surveyed literature above, both in theoretical and conceptual contexts emphasizes planning, technical efficiency and staff competence, resource adequacy and availability as well as proper contract management as critical determinants for procurement performance.

Despite the importance of public sector procurement, the number of studies that have investigated the role of public authorities in effective supply is still small. Studies by Thomson and Jackson (2007:56), DEFRA (2006:34) and Brulhart (2009:50) draw much emphasis on effective procurement in developed nations but fail to address the factors affecting the adoption of effective procurement practices in developing nations. Studies by Patrick (2008:78) and Edward (2009:7) attempted to explain the status of effective procurement practices in Kenya but do not offer practical solution on how government training institutions should embrace effective procurement practices. A study by Talluri (2008:19) found that many government organizations in United India and Malaysia lack

effective procurement policies for supporting effective implementation of procurement practices. A study by Moses (2009:45) found that application of poor sourcing strategies is a key impediment to implementation of effective procurement practices in many government institutions in Kenya. A study by Simpson and Power (2007:56) found that in many African government institutions, many procurement managers are not trained on implementation of effective procurement practices since most African institutions have not embraced effective procurement practices in public procurement training institutions. These studies have not specifically addressed the key effective procurement practices implementation challenges hence developing a major knowledge gap on factors influencing the performance of procurement and disposal unit in institutions in Uganda. This study aims to fill the missing gaps by determining the major factors influencing the implementation of effective procurement practices and offering recommendations on implementation of effective procurement practices in institutions.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents a description of research design, study population, determination of the sample size, sampling techniques and procedure, data collection methods, data collection instruments, pre-testing, procedure of data collection and measurement of variables. It gives the roadmap to solving the stated research problem.

3.2 Research Design

The research design constitutes the blue print for the collection, measurement and analysis of data, Kothari, (2005:25). Across-sectional survey was used to identify the opinions of the sampled staff of NARO about the factors influencing the performance of the PDU at NARO. The choice of this design was appropriate for this study because it utilized a questionnaire as a tool for data collection

and helped to establish the behaviour of employees towards embracing performance in procurement and disposal unit. The descriptive design was used since the study gathered quantitative and qualitative data that described the nature and characteristics of factors influencing the implementation of effective procurement practices. According to Sekaran (2003:26), descriptive research design is a type of design used to obtain information concerning the current status of the phenomena to describe, what exists with respect to variables or conditions in a situation. Kothari (2003:26) describes descriptive research as including surveys and fact-finding enquiries adding that the major purpose of descriptive research is description of the state of affairs as it exists. Correlation research design was used to determine the extent to which two variables are related. This design uses a statistic known as correlation coefficient to measure the strength and direction of the linear relationship between the involved variables. The two study designs facilitated towards gathering of reliable data describing the true characteristics of factors affecting the performance of PDU at NARO.

3.3 Study population.

According to Sekaran (2009:16), population is the universe of units from which the sample is to be selected or it is an entire group of persons, or elements that have at least one thing in common. The study population for this research comprised procurement officers and other staff in management at all the National Agricultural Research Organization institutes, which have a work force of about 900 employees. These are listed below:

1. National Crops Resources Research Institute – Wakiso District;
2. National Fisheries Resources Research Institute- Jinja District;
3. National Forestry Resources Research Institute- Mukono District;

4. National Livestock Resources Research Institute- Tororo District;
5. National Agricultural Research Laboratories- Wakiso District;
6. National Semi Arid Resources Research Institute- Serere District
7. National Coffee Research Institute- Mukono District

ZARDIs

1. Abi Zonal Agricultural Research and Development Institute – Arua District;
2. Bulindi Zonal Agricultural Research and Development Institute-Hoima District;
3. Kachwekano Zonal Agricultural Research and Development Institute-Kabale District;
4. Mukono Zonal Agricultural Research and Development Institute-Mukono District;
5. Ngetta Zonal Agricultural Research and Development Institute-Lira District;
6. Nabuin Zonal Agricultural Research and Development Institute- Nakapiripirit District
7. Mbarara Zonal Agricultural Research and Development Institute-Mbarara District;
8. Buginyanya Zonal Agricultural Research and Development Institute-Sironko District;
9. Rwebitaba Zonal Agricultural Research and Development Institute-Kyenjojo District.

The target population was only the employees of the NARO from each of the PARIs and ZARDIs.

The employees were categorized as in Table 3.1.

Table 3.1 Study Population

Category	Target population	Percentage
Top management	135	15%
Middle level management	261	29%
Low level management	504	56%
Total	900	100%

3.4 Determination of the sample size

A sample is a set of observations drawn from a population by a defined procedure. The sample represents a subset of manageable size. Samples are collected and statistics are calculated from the samples so that one can make inferences or extrapolations from the sample to the population. The sample size of this study was 180 respondents.

Table 3.2: Sample size determination

Category of respondents	Target population	ratio	Sample size
Top management	135	20%	27
Middle level management	261	20%	52
Low level management	504	20%	101
Total	900	20%	180

3.5 Sampling Techniques and Procedure.

To determine the number of respondents, the researcher used the Convenience Sampling technique where respondents were selected from the NARO Institutes without any underlying probability-based section method (Human Rights Data Analysis Group, 2013).

Convenience method of sampling was used because scores of employees are not readily available due to the demanding nature of the work carried out by NARO, access to respondents and the extent to which the respondents interact with the procurement process. A total of 180 respondents were chosen to give their opinions by filling the questionnaires.

3.6 Data Collection Methods.

3.6.1 Close-ended Questionnaire method:

The close-ended questionnaires were used to obtain quantitative data for the research in order to gather information systematically, because of its usefulness and easy usage, and for its timeliness and cost efficiency. The nature of the questionnaire was also to enable the researcher to gather only relevant data for the study. A total of 180 questionnaires were used and properly monitored so that they are returned. With the questionnaire method the researcher was able to easily reach out to the large numbers of respondents in a short period of time.

3.7 Data collection instruments

Primary data was obtained from respondents by the researcher through observation checklist as an instrument and the questionnaire was designed using the variables identified as important for meeting the study objectives.

3.8 Pre-testing (Validity and Reliability)

3.8.1 Validity

Validity refers to the truthfulness of findings or the extent to which the instrument is relevant in measuring what it is supposed to measure (Sekaran, 2009:20). The content of validity of the data collection instrument was determined through discussing the research instrument with the research experts in the university. The valuable comments, corrections, suggestions given by the research

experts assisted in the validation of the instrument. The research experts and the procurement department staff were expected to tick the items in the questionnaires to help to determine the factors affecting the performance of PDU at NARO. The content of the responses given by the respondents were checked against the study objectives. Evidence of content relevance, representativeness and relevance to the research variables indicates that the research instruments are valid (Joppe, 2000:35).

3.8.2 Reliability

Reliability measures the consistency of research instruments to come out with the same result each time it is used under the same condition (Sekeran, 2009). The reliability of the research instruments was ascertained by carrying out a Cronbach alpha test on the responses from the pre-testing to make sure that the questions and answers obtained are consistent and accurate. This was confirmed when the Cronbach alpha test gave a value of over 0.65, which is considered to be the minimum test result for a reliable questionnaire.

Table 3.3 Reliability of Statistics

Variable	No. of items	Cronbach's Alpha
Procurement planning		0.78
Contract management		0.88
Resource allocation		0.77
Professionalism of the work force		0.86
overall	125	0.594

Sources: Survey data, SPSS output

From table T.3 above, the value for Cronbach's Alpha (α) was 0.594 for all variables. When these calculated reliability values are close to 0.7000, and compared with the minimum value of Alpha

0.600 advocated by Cronbach (1951), then the responses generated for all of the variables used in this research were reliable enough for data analysis.

3.9 Procedure of Data collection

The study used primary data. The data was collected by interviewing and administering questionnaires. The questionnaire had close-ended questions, in order to allow only relevant and precise responses.

3.10 Data Analysis

3.10.1 Data processing

Data was edited, coded and tabulated, to reveal the percentage scores of the different study attributes. The researcher edited the data collected for accuracy and completeness. Through coding, all answers obtained from different respondents were classified into meaningful categories and this was then tabulated into tables and pie charts to represent findings from the study.

3.10.2 Data Analysis

The Pearson's correlation coefficient in SPSS programme was used to establish the relationship between the two variables. In presenting the findings, tables and figures were used. The frequency distribution tables were used to tabulate data to show percentages calculated.

Quantitative data collected using questionnaires was summarized using descriptive statistics, where frequencies and percentages were calculated. This kind of analysis allows measurement and description of the relationship between two variables Sekeran, (2009:24). The main data collection instruments used to collect data included questionnaires containing open-ended and closed-ended questions with the quantitative section of the instrument utilizing an ordinal scale format. The ordinal format was selected because according to Kiess and Bloomquist (2009:9), this format yields

equal-interval data, a fact that allows for the use of more powerful statistical tools to test research variables. Questionnaires are preferred because according to Dempsey (2003:22) they are effective data collection instruments that allow respondents to give much of their opinions pertaining to the researched problem. According to Kothari (2003:15), the information obtained from questionnaires is free from bias and researcher's influence and thus accurate and valid data were gathered. Interview schedules were also used to compliment questionnaires data. The questions addressed by the questionnaires and interview guide sought factors affecting the implementation of effective procurement practices.

3.10.3 Inferential Analysis

Correlation analysis was used to measure the direction, strength and significance of the relationship between the factors affecting the performance of the PDU at NARO. Correlation research design was used to determine the extent to which two variables are related. This design uses a statistic known as correlation coefficient to measure the strength and direction of the linear relationship between the involved variables. The two study designs facilitated towards gathering of reliable data describing the true characteristics of factors affecting the performance of PDUs at NARO. Primary data were gathered through the use of questioning method in form of a semi structured questionnaire (open and closed-ended questions). The questionnaires were self-administered to a total of 125 respondents and later picked for analysis. Secondary data was collected through the review of both empirical and theoretical literature sourced from books, journals and internet on effective procurement practices. A multiple regression model was then fitted to determine the combined effect that the independent variables had on the dependent variable when acting jointly.

3.11 Measurement of variables (quantitative studies)

In this section the researcher sought to assign codes to empirical properties of the variables that determined the type of statistical analysis that was conducted and the type of conclusions that are drawn from the research. Interview questions were assigned two codes, that is, 0 and 1. Respondents with the same code of response were aggregated into one data table that was used in the analysis. Respondents were expected to answer yes or no for some questions, strongly agree, agree, strongly disagree and disagree for the other questions.

Simple correlation design was used to explain the factors affecting the performance of the PDU at NARO. This is in accordance with Amin (2005), who states that simple correlation study can be used to determine the relationship between two variables. The independent variables included parameters such as contract management, staff competence, allocation of resources and procurement planning. The dependent variable was performance which included variables such as efficiency, quality and timeliness of procurement outputs such as award of contracts and relevance of procured assets, among others. The data collated was entered into a computer and analyzed using Statistical Package for Social Sciences (SPSS Version 16). The software packages enabled the researcher to analyze the data into percentages, means and standard deviations

3.12 Ethical considerations

To meet minimum ethical standards, the researcher used an introductory letter from Uganda Technology and Management University (UTAMU), introducing the research study and stating confidentiality, specific usage aspects. While conducting the survey, care was taken to respect human dignity and secure informed consent from the respondents. Also, the information acquired will be kept confidential and will be used for the research only. The principle of academic integrity

which involved acknowledgement of sources of both primary and secondary information used in the survey was adhered to. Ethical clearance was sought from the Ethics Committee of Uganda Technology and Management University before the study was conducted.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF THE FINDINGS

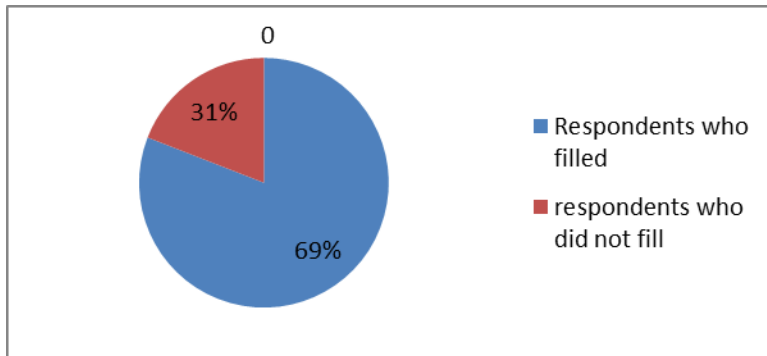
4.1 Introduction

As indicated in the previous chapter, the aim of this study was to examine the factors affecting performance of the Procurement and disposal unit (PDU) in the Uganda National Agricultural Research Organization (NARO). This chapter therefore presents the findings, analyzes them as well gives an interpretation of them.

4.2. Response rate

The study distributed 180 questionnaires to sampled staff working at NARO. Out of those, 125 sample respondents filled in and returned the questionnaire while 55 respondents did not return the questionnaire contributing to 69% response rate.

Chart 4.1: Response rate



This response rate was attributed to the data collection procedure, where the researcher personally administered questionnaires and waited for respondents to fill in, and picked the questionnaires once fully filled. The response rate demonstrates a willingness of the respondents to participate in the study. This was in line with Orodho (2009:37) that a response rate above 50% contributes towards gathering of sufficient data that could be generalized to represent the opinions of respondents about the study problem in the target population

4.3 Demographic Characteristics of the Respondents

4.3.1 Gender of the Respondents

The study sought to find out the gender of the respondents. According to the findings, 65% of the respondents indicated that they were male while 35% of the respondents indicated that they were female. The results were as shown in Table 4.

Table 4.1: Gender of the Respondents (N=125)

Variable	Frequency	Percentage
Male	81	65%
Female	44	35%

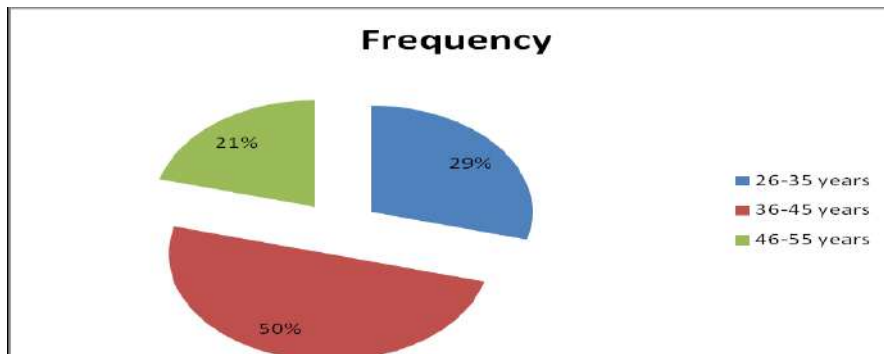
Source: Field Data, (2016)

The information in Table 4.1 shows that 81(65%) of the respondents were male while 44 (35%) respondents were female. This implies that there are fewer females employed by NARO and also depicts the willingness of the males to participate in the study. The number of females can be attributed to their unwillingness to participate since majority are not involved in the procurement process.

4.3.2 Age Range of the Respondents

The respondents were required to indicate their age range. This was to establish their level of experience and expertise at NARO. The results were as shown in Chart 4.2

Chart 4.2 Age distribution of respondents



Source: Field Data, (2016)

The study results reveal that 50% of the respondents were aged between 36 and 45, 29% of the respondents indicated that they were aged between 26 and 35, while 21% of the respondents indicated that they were aged between 46 and 55. These findings indicate that majority of the employees at NARO are middle aged and elderly. This implies that these are experienced employees who could have given the relevant information to the study area. Most of the employees are energetic such that they can adjust to the strategies adopted within the organization and they are experienced enough to give appropriate answers concerning the study.

4.3.3 Highest Educational Qualification of the Respondents

The study also sought from the respondents about their educational level. The findings are presented in Table 4.2.

Table 4.2 Highest Level of Education (N=125)

Education level	Frequency	Percentage
Certificate & below	0	-
Diploma	10	8%

Degree	80	64%
Post graduate qualification	35	28%

Source: Field Data, (2016)

The table results reveal that, 80 (64%) of the respondents had a university degree, 35 (28%) respondents had postgraduate qualifications, while 10 (8%) respondents had diplomas. As shown in Table 4.2, majority of respondents were educated, as their educational level of most respondents ranged from degree to post graduate level. Fewer respondents were diploma holders. This implies that NARO employs knowledgeable individuals to undertake various activities of the organization.

4.3.4 Marital Status of the Respondents

Information on the marital status of the respondents is presented in Table 4.3.

Table 4.3 Marital Status (N=125)

Marital status	Frequency	Percentage
Married	85	68%
Single	5	4%
Divorced	15	12%
separated	10	8%
widow	10	8%
Others	-	-

Source: Field Data, (2016)

Table 4.3 shows that 85 (68%) respondents were married, 5(4%) respondents were single, while 15 (12%) respondents were divorced .10 (8%) respondent were separated and 10 (8%) were widowed.

As shown in Table 4.3, the majority of respondents were married. This indicates that majority of employees are mature enough to make decisions and also undertake the operations of NARO.

4.4 Empirical results of the study

4.4.1 The relationship between procurement planning and performance of the procurement and disposal unit at NARO

The study further found it necessary to investigate the relationship between procurement planning and performance of PDU. The findings were as discussed in the subsections herein. The researcher required the respondents to indicate to what extent procurement planning affected the performance of PDU. The summary of the findings is as presented in Table 4.4.

Table 4.4 showing summary of the findings of procurement planning

Variables	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
PROCUREMENT PLANNING	75	60	15	12	5	4	25	20	5	4
Procurement planning helps in resource allocation	75	60	5	4	20	16	25	20	0	0
Procurement planning helps to achieve performance	82	65.6	3	2.4	5	4	15	12	20	16
The procurement plan is always integrated with the budgeting	65	52	35	28	10	8	0	0	15	12
Poor procurement planning leads to big budget deficits	20	16	5	4	35	28	65	52	0	0
Procurement planning results into compliance to set procedures	82	65.6	15	12	3	2.4	20	16	5	4
Economies of scale can be gained by proper procurement planning	20	16	75	60	25	20	5	4	0	0
Mean	75	60	15	12	5	4	25	20	5	4

Source: primary data

From the findings shown in Table 4.4, 15 (12%) of respondents agreed that procurement planning affected the performance of PDU. 75(60%) strongly agreed, 5(4%) were not sure, 25(20%) disagreed while the remaining 5(4 %) strongly disagreed to the statement that procurement planning affected performance of PDU. This implies that procurement planning had an effect on the performance of PDU.

Table 4.5 showing Correlation results of procurement planning and performance of PDU

	Procurement planning	Performance of PDUs
Pearson correlation	.268	1
Sig.2 tailed	.060	
N	125	125

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

According to the results in Table 4.5, procurement planning and performance of PDU were found to have a significant positive relationship ($r=0.258$, $p<0.05$). Thus, the hypothesis that stated that procurement planning has a significant influence on the performance of PDU is accepted. This implies that procurement planning has a positive effect on performance of PDU.

Table 4.6 showing Regression analysis of procurement planning

R square=0.077, P=0.011		
	Standardized Coefficients	Sig.
	Beta	
Procurement planning	0.258	.060

According to the results in the summarized Table 4.6, findings show that procurement planning significantly affects performance of PDU ($r = 0.258$). This implies that procurement planning is a significant determinant for the performance of PDU.

This concurs with Rotich (2011:43) that procurement plans are formulated and reviewed bi-annually. This brings focus and accountability in the procurement process which enhances efficiency and effectiveness of the procurement function. Equally, Mamiro (2010:22) points out that one of the major setbacks in procurement is poor planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement. This implies that procurement planning is very critical and contributes significantly to organizational performance in private sector. This concurs with Duncombe & Searcy (2009:22) that private organizations are governed by a complex set of laws and regulations their procurement systems are designed to achieve three goals that is ensuring the best price; providing open and fair competition among vendors and preventing favouritism and corruption

4.4.2 The relationship between contract management and performance of the procurement and disposal unit at NARO

The second objective sought to establish the relationship between contract management and performance of the procurement and disposal unit at NARO. To achieve this, the respondents were required to indicate the extent to which contract management affected the performance of PDU. The summary of the findings is as presented in Table 4.7

Table 4.7 showing summary of findings of contract management

CONTRACT MANAGEMENT	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
There is proper management of the procurement contracts	75	60	20	25	12	15	5	4	5	4
Most of the contracts entered into are properly managed	16	20	20	25	60	75	0	0	5	4
There is proper contract control in NARO	20	25	15	12	5	4	5	4	60	75
There are enough resources provided for the contract management process	10	8	15	12	35	28	0	0	52	65
Contract management supports performance of PDU at NARO	65	52	5	4	0	0	35	28	20	16
Contract managers monitoring quality assurance (time, cost and quality control)	75	60	15	12	5	4	25	20	5	4
Mean	75	60	20	20.8	12	16	55	8.5	55	23.5

From the findings shown in Table 4.7, 75 (60%) of respondents strongly agreed that there was proper management of procurement contracts. This implies therefore that contract management influenced performance of PDU. In the presence of uncertainty, therefore, contractual relationships involve a moral hazard problem. In order to overcome this, the organization may transfer risk to the entire unit, but this comes at a price since risk-averse firms will charge a premium for bearing risk.

Baquero's (2005) study reveals that contract management entails planning, organizing, control and directing payments. To avoid delays in supply and provision of services, timeliness has to be respected. Work plans and contract periods have to be respected since most projects would have overruns.

Table 4.8 showing Correlation results of contract management and performance of PDU

	contract management	Performance of PDUs
Pearson correlation	.195	1
Sig.2 tailed	.205	
N	125	125

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

According to the results in Table 4.10, contract management and performance of PDU were found to have a significant positive relationship ($r=0.195$, $p<0.05$). Thus, the hypothesis that stated that contract management has a significant influence on the performance of PDU is accepted. This implies that contract management planning has a positive effect on performance of PDU.

A regression analysis was conducted and the results are summarized in table below;

Table 4.9 showing Regression analysis of contract management

R square=0.077, P=0.011		
	Standardized Coefficients	Sig.
	Beta	
contract management	0.195	.205

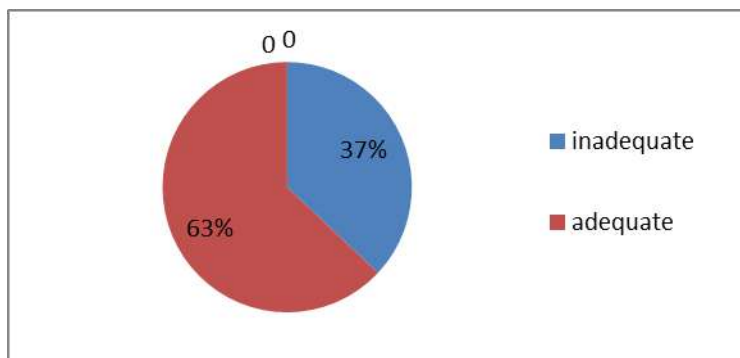
According to the results in the summarized Table 4.9, findings show that procurement planning significantly affects performance of PDU ($r = 0.195$). This implies that procurement planning is a significant determinant for the performance of PDU.

Maria's (2013) study established that in contract management, the contract supply chain relationship provides a high level framework to approach contracting as a business process. However, even the most carefully designed contracting process supported by sophisticated information technology will not succeed without capable contract management professionals (Maria, 2013). Thus organizations need to invest in developing the functional and interpersonal skills of the staff. R.O.K (2010) confirmed the importance of contract administration to the success of the contract and for the relationship between customer and provider should not be underestimated.

4.4.3 Resource Allocation and Performance of procurement and disposal unit at NARO

The study sought to find out whether the funds allocated to the departments of procurement were adequate. From the findings, 87% of the respondents indicated that the funds allocated to the departments for procurement were largely inadequate, with the rest 13% indicating that they were adequate.

Chart 4.3 Resource Allocation



The respondents further indicated that funds allocation for procurement influence performance of procurement and disposal unit to a large extent.

Table 4.10 showing summary of findings on resource allocation

RESOURCE ALLOCATION	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	5
The procurement unit has ensured that the planned resources are procured on time	66	83	10	16	4	3	5	4	16	20
All significant materials to be developed by the contractor are identified before resource allocation	65	52	35	28	15	12	10	8	0	0
Time schedule for the provision of services/works is estimated	5	4	25	20	5	4	15	12	75	60
Mean	45.3	46.3	23.3	21.3	8	6.3	10	8	30.3	26.6

As shown in Table 4.10 majority of the respondents, 66 (83%), strongly agreed resources were vital for the operation of the PDU. This is followed by 65 respondents who believe that all significant materials to be developed by the contractor are always identified before resource allocation. This implies that resource allocation is a significant determinant in the performance of PDU. From the findings, the respondents indicated that resource confirmation and resource allocation help to make procurement effective when carried out appropriately.

Table 4.11 showing Correlation results of resource allocation and performance of PDU

	resource allocation	Performance of PDU
Pearson correlation	.130	1
Sig.2 tailed	.056	
N	125	125

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

According to the results in Table 4.11, resource allocation and performance of PDU were found to have a significant positive relationship ($r=0.258$, $p<0.05$). Thus, the hypothesis that stated that

resource allocation has a significant influence on the performance of PDU is accepted. This implies that resource allocation has a positive effect on performance of PDU. A regression analysis was conducted and the results are summarized in table below;

Table 4.12 showing Regression analysis of resource allocation

R square=0.077, P=0.011		
	Standardized Coefficients	Sig.
	Beta	
resource allocation	0.130	.056

According to the results in the summarized Table 4.12, findings show that resource allocation significantly affects performance of PDU ($r = 0.130$). This implies that resource allocation is a significant determinant for the performance of PDU.

Accountability is government's obligation to demonstrate effectiveness in carrying out goals and producing the types of services that the public wants and needs (Segal and Summers, 2002:11). Lack of accountability creates opportunities for corruption. Brinkerhoff (2004:15) identifies three key components of accountability, including the measurement of goals and results, the justification or explanation of those results to internal or external monitors, and punishment or sanctions for non-performance or corrupt behaviour. Strategies to help increase accountability include information systems which measure how inputs are used to produce outputs; watchdog organizations, health boards or other civic organizations to demand explanation of results; performance incentives to reward good performance; and sanctions for poor performance.

4.4.5 Professionalism of the work force and Performance of Procurement and disposal Unit at NARO

The study also sought to find out whether the procurement staff had the necessary skills and experience to carry out procurements effectively and whether staff competences influence performance of procurement and disposal unit at NARO. The study reveals that procurement staff competencies affect performance of procurement and disposal unit at NARO as a whole in other words the study reveals that experienced staff carries out duties in a professional manner and reduces wastage of resources.

Table 4.13 showing summary of findings on Professionalism of the work force

PROFESSIONALISM OF THE WORK FORCE	SA		A		N		D		SD	
	F	%	F	%	F	%	F	%	F	%
The procurement officers are well trained	83	66	15	12	4	3	20	16	5	4
The NARO budget does not cater for the training of procurement officers	65	52	35	28	5	4	0	0	20	16
There is sufficient skilled power in the NARO PDU	35	28	20	16	5	4	0	0	65	52
The available procurement officers have the capacity to negotiate contracts	25	20	16	13	5	4	5	4	75	60
The procurement officers follow the available procurement guidelines/laws/regulations	65	52	10	8	15	13	35	28	0	0
Mean	54	34.5	30.3	24	15	16.5	13.5	16	23	25.7

As shown in Table 4.13, the respondents agreed with the statements that there is sufficient skilled manpower at NARO (4.43). They neither agreed nor disagreed that NARO Budget does not cater for training (3.45). They disagreed with the statement that procurement officers follow guidelines/laws (2.12), procurement officers are well trained. The preservation and development

of staff competences are critical issues to these companies. Competences are a part of the company's intangible resources. Intangible resources and people based skills are pointed out as strategically important resources for gaining a sustainable competitive advantage .This implies that professionalism of the work force is very critical and contributes significantly to organization performance.

Table 4.14 showing Correlation results of professionalism of the work force and performance of PDU

	professionalism of the work force	Performance of PDU
Pearson correlation	.220	1
Sig.2 tailed	.094	
N	125	125

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

According to the results in Table 4.14, professionalism of the work force and performance of PDU were found to have a significant positive relationship ($r=0.220$, $p<0.05$). Thus, the hypothesis that stated that professionalism of the workforce has a significant influence on the performance of PDU is accepted. This implies that professionalism of the workforce has a positive effect on performance of PDU. A regression analysis was conducted and the results are summarized in table below;

Table 4.15 showing Regression analysis of professionalism of the work force

R square=0.077, P=0.011

	Standardized Coefficients	Sig.
	Beta	
professionalism of the workforce	0.220	.094

According to the results in the summarized Table 4.15, findings show that professionalism of the workforce significantly affects performance of PDU ($r = 0.220$). This implies that professionalism of the workforce is a significant determinant for the performance of PDU.

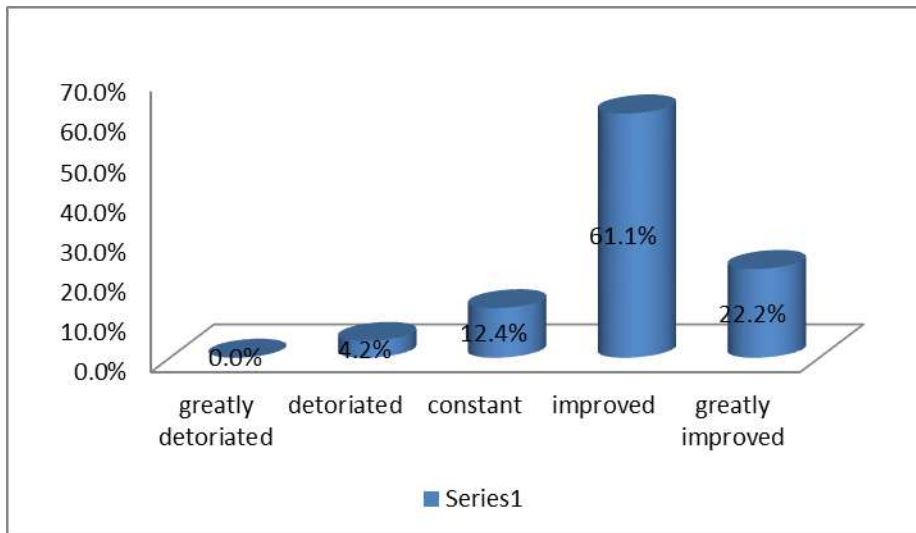
Professionalism is defined as a capability, ability or an underlying characteristic of an individual, which is casually related to effective or superior performance. For purposes of this study, Professionalism is used to refer to applied knowledge and skills, performance delivery, and the behaviour required getting things done very well (Armstrong and Baron, 1995:16). Public procurement professionals have to strive to achieve three competing demands of meeting commercial interests with key themes of value for money, economy, efficiency and effectiveness; the regulatory interests with key themes of competition, transparency, equality and compliance and the social interests whose key themes include public interest, employment concerns, social exclusion, economic development and environment policy (Errigde & Mclroy, 2002:58). In an effort to attain these demands, organizations constantly look for employees who have skills necessary to deal with the wide variety of tasks faced by purchasing professionals (Monczka et al, 1998:78). Procurement professionals need a set of flexible skills due to changing local government contexts. No single skill can be adequate to manage the procurement portfolio of great complexity in local government systems. Procurement tasks demand professionals with

high level strategic, tactical as well as operational skills. These skills should potentially take a broader supply chain multi-disciplinary and integrative approach.

4.4.6 Organizational Performance

The study also sought to establish the trend of performance of the PDU in NARO Institution in the past five years. The findings are summarized in chart 4.4.

Chart 4.4 showing Organizational Performance



From the findings, 61.1% of the respondents gave feedback that the performance has improved, 22.2% indicated that it has greatly improved, 12.4% said that it was constant, 4.2% said that it had deteriorated while none indicated to it having greatly deteriorated. It can therefore be concluded that the organization performance in private sector has improved over the past five years.

4.5 Trend of Procurement Performance

The study required the respondents to rate the trend of the given factors of procurement performance in private sector. The statements were on a scale of 1-5 where 1=greatly improved,

2=improved, 3=constant, 4=deteriorated and 5=greatly deteriorated. The results are summarized in table 4.16.

Table 4.16: Trend of Procurement Performance

	Mean	SD
Effective control and stewardship of resources	4.21	0.760
Efficiency and effectiveness in procurement	4.36	0.089
Organized procedures and systems	4.14	0.179
Quality	4.01	0.322
Timely delivery of goods and services	3.46	0.057
Cost minimization	2.43	0.671
Inventory Optimization	4.11	0.089
Buyer Supplier Relationship	4.06	0.179
Audit and Compliance	3.31	0.322

As shown on Table 4. 16, the respondents gave feedback that there was an improvement on efficiency and effectiveness in procurement (4.36), effective control and stewardship of resources (4.21), organized procedures and systems (4.14), inventory optimization (4.11), buyer supplier relationship (4.06), quality (4.01). Timely delivery of goods and services and audit and compliance remained constant with 3.46 and 3.31 respectively. However, cost minimization decreased as shown by a mean of 2.43. This implies that procurement indicators perform exemplary in public sector.

4.6 Inferential Analysis

To establish the relationship between the independent variables (Planning, contract management resources allocation, professionalism of the work force) and the dependent variable of the study, an inferential analysis which involved a coefficient of determination and a multiple regression analysis were carried out. The Inferential analysis was utilized in this study to determine if there was a relationship between the variables, as well as the strength of that relationship. The

inferential statistics analysis aimed to reach conclusions that extend beyond the immediate data alone between the independent variables in this study which included Planning, contract management, resources allocation and, professionalism of the workforce.

4.7 Regression Analysis

In addition, the study conducted a multiple regression analysis so as to determine the influence of Planning, contract management, resource allocation, professionalism of the workforce on performance of PDU at NARO. Multiple regressions are a statistical technique that allows the study to predict a score of one variable on the basis of their scores on several other variables. The main purpose of multiple regressions is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable.

Table 4.17 ANOVA for regression analysis

Model	sum of squares	df	mean square	f
	sig.			
Regression	2.534	2	1.267	5.455
	.024			
Residual	9.307	40	2.327	
Total	3.465	42		

The F critical at 5% level of significance was 3.23. Since F calculated is greater than the F critical (value = 5.455), this shows that the overall model was significant. From table 4.9 above, the significance value is 0.024 which is less than 0.05 thus the model is statistically significant.

in predicting how Planning, resource allocation, staff competency and contract management affect the performance of procurement and disposal units at NARO.

Table 4.18: Significance of the Variables in the Model

Model	unstandardized coefficients		standardized coefficients	t	sig.
	B	std. error	Beta		
(Constant)	3.026	.733		2.127	.000
Planning	.269	.255	.202	3.081	.293
Contract management	.172	.155	.147	2.578	.433
Resources allocation	.201	.222	.016	2.960	.939
Professionalism of staff	.233	.153	.232	3.229	.191

The study conducted a multiple regression analysis to determine the relationship between independent variables and dependent variable. The regression equation was

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

Where β_0 is the regression intercept; β_1 - β_4 are the regression coefficients while Y is the dependent variable (performance of PDU) X1 is the planning independent variable, X2 is the Contract management independent variable, X3 is Resources allocation independent variable and X4 is Professionalism of the work force. From the regression equation established, taking all the factors (Planning, contract management, resource allocation, professionalism of the work force) constant at zero, the performance of PDUs at NARO would be 3.026.

Further, if all the other variables are kept constant, a unit increase in procurement planning will lead to a 0.269 increase in performance of PDUs at NARO. A unit increase in Contract management will lead to a 0.172 increases in performance of procurement and disposal unit at

NARO, a unit increase in Resource allocation will lead to a 0.201 increase in performance of procurement and disposal unit at NARO, while a unit increase in professionalism of the work force will lead to a 0.233 increase in performance of PDU at NARO. These results imply that procurement plans contribute more to the performance of PDU at NARO followed by professionalism of the workforce, then contract management, while Resource allocation contributes the least to PDU performance at NARO.

At 5% level of significance and 95% level of confidence, planning strategies had a 3.081 level of significance, contract management strategies showed a 2.578 level of significance, resource allocation strategies showed a 2.960 level of significant and professionalism of the work force strategies had a level of significance of 3.229. Hence the most significant factor is planning strategies. The t critical at 5% level of significance at $k = 4$ degrees of freedom is 2.127. Since all t calculated values were above 2.127 then all the variables were significant in explaining the performance.

4.8 Spearman's Rank Correlation Coefficient

To quantify the strength of the relationship between the variables, the researcher used Spearman's coefficient of correlation. The researcher used the Spearman's coefficient of correlation (ρ) to study the correlation between the study variables and the findings were as in the table below.

Table 4.19: Correlation Coefficient of the Model

	Performance Of PDU	planning	Contract Management allocation	Resources of work force	Professionalism
PDU performance	1	.268	.195	.130	.230
Sig.(2-tailed)		.060	.174	.927	.108
Planning		1	.183	.478	.259
Sig.(2-tailed)			.205	.020	.069
Contract management			1	.272	.439
Sig.(2-tailed)				.056	.001
Resources allocation				1	.239
Sig.(2-tailed)					.094
Professionalism of staff					1
Sig.(2-tailed)					

There was a positive correlation between performance of PDU and planning with a correlation figure of 0.268, it was clear that there was a positive correlation between the procurement performance and resource allocation as shown by a correlation figure of 0.195, it was also clear that there was a positive correlation between the performance of PDU and staff competency with a correlation figure of 0.130, it was also clear that there was also a positive correlation between performance of PDU and contract management with a value of 0.230. This shows that there was positive correlation between performance of PDU and planning, contract management, resource allocation and staff competency.

4.9 Coefficient of Determination

The coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (performance) that is explained by all the four independent variables (Planning, contract management, resource allocation and staff competency).

Table 4.20: Coefficient of Determination

Model	R R2	Adjusted R2	Std.error of the estimate		
1		.708 (a)	.875	.839	.633

The model's four independent variables (planning, contract management, resource allocation and staff competency) that were studied explain only 87.5% of the procurement performance at NARO as represented by the R2. This therefore means that the four independent variables only contribute about 87.5% to the performance of PDU at NARO while other factors not studied in this research contribute 12.5% of the performance of PDU at NARO. Therefore, further research should be conducted to investigate the other factors (12.5%) that affect performance

4.10 Reliability Analysis

Reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. The value of the alpha coefficient ranges from 0-1 and may be used to describe the reliability of factors extracted from dichotomous and or multi-point formatted questionnaires or scales. A higher value shows a more reliable generated scale. Cooper &Schindler (2008) has indicated 0.7 to be an acceptable reliability coefficient. Table 1 shows procurement planning had the greatest reliability ($\alpha= 0.798$) followed by resources ($\alpha=0.793$), then contract management ($\alpha = 0.777$) and professionalism of the staff ($\alpha=0.721$). This illustrates that all the four scales were reliable as their reliability values exceeded the prescribed threshold of 0.7.

CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The main concern of this study was to analyze factors that affect the performance of procurement and disposal units at National Agricultural Research Organization (NARO). The aim of this chapter is to present the summary of the findings, recommendations and draw conclusion on areas for further study.

5.2 Summary of the Findings

The procurement function plays a key support role in the operations at NARO. The process must be well thought through action plans which are not static. With proper monitoring of projects NARO is assured of efficient and effective service delivery. The main purpose of the study was to establish factors affecting performance of PDU at NARO. The study was conducted through descriptive design with a target population of 900 and 180 respondents were issued with a questionnaire. Data was collected using a structured questionnaire. The four independent variables only contribute about 87.5% to the performance of PDU while other factors not studied in this research contribute 12.5% of the performance of PDU at NARO.

From the findings, most of the respondents indicated that the most important factor is procurement planning followed by contract management. This was because good plans result to effectiveness and efficiency in attaining projected results. However, 7% of the respondents indicated that without staff competence the budget allocation and contract management will be useless. The summary of findings on each variable follows:

5.2.1. Impact of Planning on Performance of Procurement and Disposal Unit

The first objective was to establish the impact of Procurement planning on performance of PDU. The results revealed that 61% of the respondents indicated that procurement plans in the PDU impacted positively on performance of PDU while the rest (39%) of them indicated that the procurement plans did not affect performance. This is also confirmed by Rotich (2011). Results indicated that procurement plans are formulated and reviewed bi-annually. From the regression model, a unit increase in planning will lead to a 0.269 increase in procurement performance at NARO. This implies that planning accounts for 26.9 % of variations in performance. Basheka, (2008) in his findings concludes that planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today.

5.2.2. Contract Management and Performance of Procurement and Disposal Unit

The study found out that the established budget allocations for contracts and contract activity timelines are respected as indicated by all the respondents. 71% of the respondents indicated that contract management influences performance of PDU to a great extent and that contract management entails planning, organizing, control and directing payments. 42 % of the respondents indicated that there were delays in payments to suppliers and that this affected greatly on their service delivery. 40% indicated that there was lack of proper controls in management of contracts and that the user was left alone to manage and monitor projects. The study also found out that 54% of the respondents were not aware of any project progress reports filed with management. From the regression model, a unit increase in contract management will lead to a 0.233 increases in performance of PDU at NARO. Implying contract management accounts for 23.3% of variations in performance. The study further reveals that contract

management entails planning, organizing, control and directing payments and when a partial assignment of the contract is completed means contract management affects performance of PDU. The respondents added that to avoid delays in supply and provision of services, timelines have to be respected. Work plans and contract periods have to be respected since most projects would have overruns.

5.2.3. Resource Allocation and Performance of Procurement and Disposal Unit

From the findings, 87% of the respondents indicated that the funds allocated to the departments for procurement were largely inadequate with the rest 13% indicating that they were adequate. The respondents further indicated that funds allocation for procurement influence performance to a large extent. Even though there was inadequacy of funds allocated to the PDU, resource confirmation and resource allocation helps make procurement effective when carried out appropriately. From the regression model, a unit increase in Resource allocation will lead to a 0.172 increases in procurement performance at NARO which implies that resource allocations accounts for 17.2 % of variations in procurement performance.

5.2.4. Professionalism of the workforce and Performance of Procurement and Disposal Unit

From the findings, 34% of the respondents indicated that the procurement staff had the necessary skills and experience to carry out procurements effectively and that the staff competences influence performance of PDU to a large extent. From the regression model, a unit increase in staff competence will lead to a 0.201 increase in performance at NARO, which implies that staff competence accounts for 20.1% of variations in performance of PDU. Procurement staff competences affect performance both for procurement unit and to the whole operation of NARO in the sense that experienced staff carry out duties in a professional manner and reduce wastage of resources. The respondents indicated that effective and efficient procurement process can only

be achieved by proper planning by competent staff else there would be flaws in the process. Competent staff would ensure that items services are procured as and when the need is expected. Lysons and Gillingham, (2003:14) confirms this indicating that procurement personnel should be knowledgeable about specifications so as to be able to secure value for money for their employers and play their role of intermediaries between the user and the supplier.

5.3 Discussion of results

5.3.1. Impact of Planning on Performance of Procurement and Disposal Unit

This concurs with Rotich (2011:12) that procurement plans are formulated and reviewed bi-annually. This brings focus and accountability in the procurement process which enhances efficiency and effectiveness of the procurement function. Equally, Mamiro (2010:33) points out that one of the major setbacks in procurement is poor planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement.

This concurs with Duncombe and Searcy (2009:25) that organizations are governed by a complex set of laws and regulations their procurement systems are designed to achieve three goals, that is ensuring the best price; providing open and fair competition among vendors and preventing favouritism and corruption. The results further revealed that the PDU prepared annual procurement plans and the goals set in a participatory manner. Procurement plans therefore influence performance of PDU in the sense that they provide focused and efficient utilization of available resources, help in budgeting and planning and therefore with adequate provision of funds due to procurement plans, performance is assured.

5.3.2. Contract Management and Performance of Procurement and Disposal Unit

The study found out that the established budget allocations for contracts and contract activity timelines are respected as indicated by all the respondents. 71% of the respondents indicated that contract management influences performance of PDU to a great extent and that contract management entails planning, organizing, control and directing payments. 42 % of the respondents indicated that there were delays in payments to suppliers and that this affected greatly on their service delivery. 40% indicated that there was lack of proper controls in management of contracts and that the user was left alone to manage and monitor projects. The study also found out that 54% of the respondents were not aware of any project progress reports filed with management. From the regression model, a unit increase in contract management will lead to a 0.233 increases in performance of PDU at NARO. Implying contract management accounts for 23.3% of variations in performance. The study further reveals that contract management entails planning, organizing, control and directing payments and when a partial assignment of the contract is completed means contract management affects performance of PDU. The respondents added that to avoid delays in supply and provision of services, timelines have to be respected. Work plans and contract periods have to be respected since most projects would have overruns.

5.3.3. Resources Allocation and Performance of Procurement and Disposal Unit

The findings concur with Thai (2004:34) who posit that there cannot be a good procurement budget without a plan, and there can be no procurement without a budget to fund it. Planning is a process that consists of many steps and the bottom line is that planning is not concerned with future decisions but rather with the future impact of decisions made today. Procurement must take a thoroughly professional view of its role in business as a whole and that must include

planning (Bailey, P. et.al, 2005:44). From the regression model, a unit increase in Resource allocation will lead to a 0.172 increases in procurement performance at NARO which implies that resource allocations accounts for 17.2 % of variations in procurement performance.

5.3.4. Professionalism of the work force and Performance of Procurement and Disposal Unit

The study sought to establish how professionalism of the work force affects performance of procurement and disposal unit. The study established that most of the respondents in this study had the required knowledge in procurement. The performance of procurement function in any organization requires that the individuals handling the procurement activity should have the necessary professional qualifications. The study further revealed that employees' recognition in NARO was moderate. The study also found that number of employees in the procurement department was not enough.

The study established that employee's experience, professional qualification, employees' satisfaction, employees' skills and level of education influences the performance of PDU. The preservation and development of staff competencies are critical issues to these companies. Competencies are a part of the company's intangible resources. Intangible resources and people based skills are pointed out as strategically important resources for gaining a sustainable competitive advantage

5.4 Conclusions from the study

5.4.1. Impact of Planning on Performance of Procurement and Disposal Unit

The study concludes that Planning positively affected performance of PDU at NARO. The purpose of planning is to be able to utilize the available resources to achieve the overall

objective. Planning explains about 27% of the variations in procurement performance while resource allocation, staff competence and contract management explain 17%, 20% and 23% respectively variations in procurement performance of NARO. The study further concludes that preparation of annual procurement plans, frequency of formulation of procurement plans and the evaluation of the same contributes to the ministry's procurement performance.

The most important factor was found to be procurement planning followed by contract management as pointed out by most of the respondents. This was because good plans result to effectiveness and efficiency in attaining projected results. Mamiro (2010) agrees with these findings and concludes that one of the major setbacks in public procurement is poor planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement. .

5.4.2. Contract Management and Performance of Procurement and Disposal Unit

The study found out that there was poor contract management at NARO characterized by delays in payments to suppliers which hampers greatly on their service delivery, lack of proper controls in management of contracts where the user was left alone to manage and monitor own projects without involvement of procurement function. Similarly, the study found out that were no project progress reports filed with management. The study further reveals that contract management entails planning, organizing, control and directing payments and when a partial assignment of the contract is completed it means contract management affects performance of PDU. The respondents added that to avoid delays in supply and provision of services, timelines have to be respected. Work plans and contract periods have to be respected since most projects would have overruns.

5.4.3. Resource Allocation and Performance of Procurement and Disposal Unit

The study concludes that resource allocation positively affected performance of PDU at NARO. From the regression model, a unit increase in resources allocation will lead to a 0.172 increases in procurement performance at NARO which implies that resources allocation accounts for 17.2 % of variations in procurement performance. Even though there was inadequacy of funds allocated to the PDU, resource confirmation and resource allocation helps make procurement effective when carried out appropriately.

5.4.4. Professionalism of the workforce and Performance of Procurement and Disposal Unit

From the findings the study concludes that staff competences affect greatly the efficiency of procurement function at NARO. Hence employees need to acquire core competences like knowledge, skills, experience and abilities to enhance public procurement function efficiency in public institutions in Uganda.

The study concludes that competent staff are effective, efficient and provide solutions to the procurement problems while incompetent staff would be ineffective and inefficient, thus contributing to poor performance for the organization. Finally the respondents indicated that effective and efficient procurement process can only be achieved by proper planning by competent staff else there would be flaws in the process. Competent staff would ensure that goods, services and works are procured as and when the need is expected. From the regression model, a unit increase in staff competence will lead to a 0.201 increases in performance at NARO which implies that staff competence accounts for 20.1% of variations in performance of PDU. Procurement staff competences affect performance both for procurement unit and to the

whole operation of NARO in the sense that experienced staff carry out duties in a professional manner and reduce wastage of resources. Gillingham (2003) confirms this, indicating that procurement personnel should be knowledgeable about specifications so as to be able to secure value for money for their employers and play their role of intermediaries between the user and the supplier.

The study concludes that Planning, contract management, resource allocation, Professionalism of the workforce positively affected performance of PDU at NARO. The purpose of planning is to be able to utilize the available resources to achieve the overall objective. Planning explains about 27% of the variations in procurement performance while resource allocation, staff competence and contract management explain 17%, 20% and 23% respectively variations in procurement performance of NARO.

5.5 Recommendations

5.5.1 Planning and Performance of Procurement and Disposal Unit

This study established that planning positively affects performance of Procurement and disposal units to a large extent. The study recommends that plans are not static and that preparation of annual procurement plans should be participatory, frequently reviewed so as to improve on NARO's performance in procurement section.

5.5.2. Contract management and Performance of Procurement and Disposal Unit

For the success of the contracts under execution, the management of NARO should ensure that proper mechanisms for project monitoring and evaluation are put in place with the input of procurement personnel and the user department with progress reports thereon escalated for necessary action. The study further recommends that decisions on outsourcing, establishing long-

term contracts and contacts with certified and or preferred suppliers, adopting a supplier strategy based on multi-versus single sourcing, making investment decisions and related to policies concerning transfer pricing and intercompany suppliers should be made.

The study recognized the need to review legislations to ensure compliance with the international procurement systems requirement. In light of this, the study recommends that the current legislation be reviewed to eliminate the loopholes hindering procurement efficiency. It is also recommended that the bodies entrusted with public procurement regulatory function should endeavor to ensure strict adherence to the Public procurement and Disposal Act (2003) and its regulations.

5.5.3. Resource Allocation and Performance of Procurement and Disposal Unit

Public institutions need to adopt a culture of transparency and fairness so as to reduce corruption and restore public confidence, The study recommends the training of staff on change management and involving them in key decision making so as to reduce resistance to change and associated unintended consequences. Bureaucracy in public intuitions affected the procurement function efficiency, hence there is need to streamline government operations by eliminating non value adding procedures.

The institutions should also adopt e-procurement and use of electronic systems to manage internal operations such as inventory management. A sustainable procurement policy should be put in place by the management. This would ensure enforceability of sustainable procurement practices. The study also recommends that Supplier appraisal criteria which incorporate sustainability aspects should be formulated and used as a guiding tool.

Suppliers should be judged on criteria that include price. Other factors which should be considered include: the speed with which supplies are delivered; the reliability of the supply; the quality of the goods or services provided; the balance between price, quality and reliability and the financial stability of the supplier

5.5.4. Professionalism of the workforce and Performance of Procurement and Disposal Unit

The study recommends that procurement officers be employed with professional qualification and they be trained continuously on procurement issues so as to develop their careers. The study further recommends that the procurement staff acquires the relevant skill and experience in procurement so that they can be able to make the right decisions. Suppliers developed through supplier partnerships and training need to be enhanced because the study established that it affects the efficiency of the procurement function in public institutions.

Equally, management of the procurement process should be administered by qualified, competent and experienced procurement professionals. This will not only help maintain good procurement standards but also will help achieve high levels of efficiency and effectiveness. In addition, to avoid delays in supply and provision of services, timelines have to be respected since most projects would have overruns. Employees should be trained on sustainable procurement concept, and regular refresher courses should be put in place so as to enhance the skills and knowledge for effective sustainable procurement practices.

5.6 Contributions of the study

The findings of the study are expected to empower the procurement and asset disposal staff to evaluate some of the policies governing procurement and asset disposal and gauge whether they are generating the intended results. This in the long term will provide such users; a base on

which to modify these policies to suit the demands of the different stakeholders hence improving the performance of the procurement and asset disposal unit at NARO. The study will aid the Central Government to body out the different avenues it can take up as a measure to enhance and increase procurement performance levels in all statutory entities

5.7 Limitations of the study.

This study reviewed the study on the internal factors affecting procurement and disposal units within NARO as a result; the researcher felt that the interviews were subject to subjectivity as individuals may not have been fully open about some issues they felt were sensitive. Most of the staff working at NARO could not easily be accessed as they were often times in the field. To this end therefore a further study should be carried out to establish the external factors affecting procurement and disposal unit.

5.8 Recommendations for Further Research

This study looked at four independent variables (planning, resource allocation, staff competency and contract management) which according the study contributes to 87.5% of the variations in procurement performance at the NARO. The researcher recommends further research to investigate the other factors that affect procurement performance. Equally, further research should be carried out in other Public entities to ascertain whether these findings are universal and research on procurement performance measurement should be carried out as this was not the objective of this study. A study should also be carried out to establish the challenges faced while carrying out procurement process of supplies in the public sector

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APPENDIX 1 QUESTIONNAIRE

TOPIC: FACTORS AFFECTING PERFORMANCE OF THE PROCUREMENT AND DISPOSAL UNIT (PDU) IN THE UGANDA NATIONAL AGRICULTURAL RESEARCH ORGANISATION (NARO)

Dear Respondent

I am Emaru Julius a Master's in Business Administration student of Uganda Technology and Management University carrying out a study titled *factors affecting performance of the Procurement and Disposal Unit (PDU) in the Uganda National Agricultural Research Organisation (NARO)*. You have been sampled to participate in this study and the information you give will be used strictly for academic purposes and will never be used against you or your office. The information got from you will be kept confidential. You are also requested not to write your name on this questionnaire. Your participation in this study is entirely voluntary. Your consent to participate is implied by your decision to complete this questionnaire. I will greatly appreciate your assistance in this exercise.

SECTION A: Background Information

(Tick the best option)

1. Gender of Respondents

Gender	Tick	
Male		1
Female		2

2. Age Groups of Respondents

Age group	Tick	
20 - 29 Years		1
30- 39Years		2
40- 49Years		3
50-59 Years		
Over 60 Years		4

3. Highest Level of Education

Education Level	Tick	
Certificate & Below		1
Diploma		2
Degree		3
Post Graduate Qualification		4

5 Respondents Marital Status

Marital Status	Tick	Measure
Married		1
Single		2
Divorced		3
Separated		4
Widow		5
Others		6

SECTION B:

PART I- Please fill in appropriately, by ranking the questions provided under each section, according to the scores provided;(5, 4, 3, 2 and 1)

		SCORES				
		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
		5	4	3	2	1
Section B1:Procurement Planning						
1.	Procurement planning helps in resource allocation					

		SCORES				
		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
		5	4	3	2	1
2.	Procurement planning helps to achieve performance	5	4	3	2	1
3.	The procurement plan is always integrated with the budgeting	5	4	3	2	1
4.	Poor procurement planning leads to big budget deficits	5	4	3	2	1
5.	Procurement planning results into compliance to set procedures	5	4	3	2	1
6.	Economies of scale can be gained by proper procurement planning					
7.	All items that have to be procured are identified	5	4	3	2	1
8.	Procurement requirements are defined	5	4	3	2	1
9.	The procurement/work plan is prioritized	5	4	3	2	1

Section B2: Contract management

10.	There is proper management of the procurement contracts					
11.	Most of the contracts entered into are properly managed	5	4	3	2	1
12.	There is proper contract control in NARO	5	4	3	2	1
13.	There is proper contract monitoring in NARO	5	4	3	2	1
14.	There is proper contract coordination in NARO	5	4	3	2	1
15.	There is proper contract supervision in NARO	5	4	3	2	1
16.	There are enough resources provided for the contract management process					
17.	The authorities are supportive to the contract supervision process	5	4	3	2	1
18.	Contract supervision is a team work process in NARO	5	4	3	2	1
19.	Contract management supports performance of PDU at NARO					
20.	Contract managers maintain contract records					

21.	Contract managers monitoring quality assurance (time, cost and quality control)					
22.	NARO nominates and appoints contract managers to manage the contracts					
23.	Contract managers prepare contract implementation plan					
24.	Contract managers monitor the delivery of supplies and services					
25.	Contract managers certify the work done					
Section B3: Resource allocation						
26.	The procurement unit has ensured that the planned resources are procured on time	5	4	3	2	1
27.	All significant materials to be developed by the contractor are identified before resource allocation	5	4	3	2	1
28.	All significant materials to be delivered by the client are identified	5	4	3	2	1
29.	Time schedule for the provision of services/works is estimated	5	4	3	2	1
30.	Completion criteria for the work to be performed is specified	5	4	3	2	1
31.	Specifications do not restrict competition	5	4	3	2	1
32.	Specifications address value for money considerations	5	4	3	2	1
33.	A detailed, mathematically sound scoring plan is developed before resource allocation	5	4	3	2	1
34.	Specifications do not restrict competition	5	4	3	2	1
35.		5	4	3	2	1
36.	Section B4: Professionalism of the Work force					
37.	The procurement officers are well trained					
38.	The NARO budget does not cater for the training of procurement officers					
39.	There is sufficient skilled power in the NARO PDU					
40.	The available procurement officers have the capacity to					

	negotiate contracts					
41.	The procurement officers follow the available procurement guidelines/laws/regulations					
		SCORES				
		Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
		5	4	3	2	1
Section B5: Performance						
42.	The procured items are delivered on time					
43.	Order processing is effective	5	4	3	2	1
44.	Carrying processing is effective					
45.	The procurement unit is effective	5	4	3	2	1
46.	There is quality service delivery	5	4	3	2	1
47.	The diversity of work by employees affects the performance of the PDU	5	4	3	2	1
48.	Lack of competent personnel's affects the performance of the PDU					
49.	Staff competences influences performance of the PDU	5	4	3	2	1

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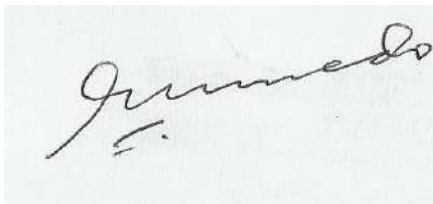
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26 September 2016

CERTIFICATE OF PROOF THAT DISSERTATION HAS BEEN EDITED

This is to certify that the Master's Degree dissertation entitled, **Factors Affecting Performance of the Procurement and Disposal Unit (PDU) in the Uganda National Agricultural Research Organisation by Julius Emaru**, has been reviewed and corrected in order to ensure clarity of expression and consistency regarding key style aspects like general grammar, sentence structure to ensure logical flow and effectiveness of meaning, all-round punctuation, consistency in citation and referencing.

A handwritten signature in black ink on a light-colored background. The signature is cursive and appears to read 'Mukotani Rugyendo'.

Mukotani Rugyendo

Professional Editor

