EVALUATION OF FACTORS AFFECTING PROCUREMENT PERFORMANCE

"A CASE STUDY OF DAIRY DEVELOPMENT AUTHORITY"

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DEDICATION

This Research is dedicated to my Cathy Kiryewala whose advice and support has seen me through this Degree

To my siblings and to my parents whose encouragement, material, love and moral support have enabled me to finish this course

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LIST OF ACRONYMS

COSO	Committee of Sponsoring Organizations of the Tread way Commission
DDA	Dairy Development Authority
DDA	Dairy Development Authority
EDI	Electronic Data Interchange
EFQM	European Foundation for Quality Management
HLG	Higher Local Government
HPDU	Head Procurement and Disposal Unit
ICT	Information Communication Technology
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
PDE	Procuring and Disposing Entity
PDU	Procurement and Disposal Unit
PMS	Procurement Management System
PPDA	Public Procurement and Disposal of Public Assets Authority
PPMS	Procurement Performance Measurement System
RFP	Request for Proposals
SPSS	Statistical Package for the Social Sciences

ABSTRACT

The study assessed the factors affecting procurement performance of public sector organizations a case study of Dairy Development Authority (DDA). The specific objectives guiding the study involved finding out how procurement planning, ICT adoption and Contract Management affect procurement performance at DDA. Over the years the procurement function has undergone marked changes which made it necessary to identify and develop competencies of procurement officers as they rose through roles. However in Uganda the competency profile of procurement officers has been described as being too narrow and excluding potentially good performers. As a result, this leaves the practice in a more or less non forward progressive situation on what should be done to better procurement performance.

The study employed a case study research design where both the quantitative and qualitative approaches were used in collecting and analysing data. The data collected from the field was coded and entered into the computer for analysis using the SPSS. Descriptive statistics and inferential statistics were used to establish comparisons as well as conclusions for the study. The study findings showed that there was a strong correlation between: procurement planning(r=0.880); ICT(r=0.810); contract management (0.991) and procurement performance.

From the findings above DDA should put in place a formalized system for adjustments made during the scheduling of the activities and a standard procurement plan template to enable timely submission of user departments' procurement plan onto of constituting an effective procurement and supplier's database. DDA should further invest into electronic procurement software that can be linked with the existing financial software, this will enable the organization to critically monitor the progress on all

procurement activities , highlight potential bottlenecks that may result from delayed initiation of any planned procurement activities

CHAPTER ONE

INTRODUCTION

1.1 Introduction to the study

Procurement is a key function of any organisation, public or private and in an era of globalization with the advent of entrepreneurial organisations, management of purchasing and supply in private as well as in public sectors has gained more prominence. Effective management of the function prevents the possibility of poor performance. When it is attributed to non-adherence to proper procurement processes it leads to poor management of the procurement function (Knight *et al*., 2008, Harland *et al*, 2007 cited in Kakwezi and Nyeko, 2010).

This study investigated the factors affecting procurement performance a case study of Dairy Development Authority (DDA) in Uganda. Andreasen (2012) concludes that the management of the procurement function is quite involving since, procurement processes are complex, given the fact that they involve the completion of a series of activities, such as procurement planning, qualifying new suppliers, procuring different types of inputs, and contract management and monitoring, that cut across both functional boundaries and organisational boundaries.

This chapter deals with the background to the study, the problem statement, general objectives, specific objectives, research questions, hypothesis, and scope of the study, significance of the study, justification of the study, operational definitions of terms and the concepts.

1.2 Background to the study

The importance of purchasing to organisational competitiveness is increasingly being noted, and is now considered more and more a strategic function instead of just an operative one (Paulraj et al 2006, Cousins and Spekman, 2003). This new focus on procurement is largely based on the fact that firms are slowly acknowledging the value added capabilities of a function that is typically responsible for procuring assets that equal about 65% of the average company's sales (Cousins and Spekman, 2003).

This could be deliberate or sheer ignorance on the value the procurement function could contribute to any Organization. According to Hudson (2008), the procurement function has undergone marked changes which have made it necessary to identify and develop competencies of procurement officers as they rise through various roles.

However in Uganda the competency profile of procurement officers has been described as being too narrow and excluding potentially good performers (PPDA Procurement Sector Review Report, 2005). As the business environment becomes more dynamic and complex than ever before, the rapidly changing environments demand for cooperation between business partners to achieve the set performance standards. Indeed, a business can hardly succeed without their partners' cooperation (Ahimbisibwe & Nangoli, 2012; Ting *et al*, 2007). Therefore, buying organisations are encouraged to build collaborative and long-term relationships with their suppliers to avoid supplier opportunism (Ahimbisibwe & Nangoli, 2012). As a result, this leaves the practice in a more or less non forward progressive situation on what should be done to better procurement performance.

Rotich (2011) admits that the evaluation or measurement of procurement performance has always been a disturbing problem for procurement professionals. He asserts that traditionally,

firms concentrate on analysing their own internal trends which does not portray the true picture on how they compare well with competitors and that such an approach ignores what the competitors are doing. This implies that such a problem requires establishment of clear procurement procedures and performance standards in various entities.

Leenders *et al.* (2002) summarize the history of procurement since the late 1800s. Originally, procurement was looked at as a clerical function, however by the 1970s, procurement began to receive academic attention as its importance as an administrative function became recognized. With Porter's (1980) seminal work, it prompted firms to think of procurement as a strategic function rather than simply and administrative one; according to his five forces model which looks at the supplier and buyer power as two acute forces for competitiveness. Subsequently from the 1980s, procurement evolved from being viewed as merely a process for buying goods and services for a firm, to being more comprehensively defined as all the activities necessary to acquire goods and services needed to achieve user requirements (Tassabehji and Moorhouse, 2008).

As result, developed and developing countries have need for a well-functioning public procurement system. This is true for developing countries, where procurement usually accounts for a high proportion of total expenditure, for example 40% in Malawi and 70% in Uganda, compared with a global average of 12-20% (Development Assistance Committee, 2005). The importance of procurement has been restated frequently, and is still one of the critical themes found in the literature (Drake and Lee, 2009; Ordanini and Rubera, 2008; Kocabasoglu, 2002). Soares-Agular and Palma-Dos-Reis (2008) and Drake and Lee (2009) argue the importance of giving procurement a strategic role in the organization and agree that achieving world-class status in procurement requires leadership and alignment of purchasing strategy with business strategy.

1.2.1 Historical Background

According to Weele (2010), prior to 1900 and World War I, purchasing was recognized as an independent function by many railroad organizations. During World War I and II – the relevance of the function increased due to the importance of obtaining raw materials, supplies, and services needed to keep the factories and mines operating. During the 1950s and 1960s, purchasing continued to gain stature as the techniques for performing the function became more refined and as the number of trained professionals increased. The emphasis became more managerial than clerical. With introduction of major public bodies and intergovernmental organizations, such as United Nations, procurement became a well-recognized science.

In the 1970s and 1980s, more emphasis was placed on purchasing strategy as the ability to obtain needed items from suppliers at realistic prices increased. In September 1983, Harvard Business Review published a ground-breaking article by Peter Kraljic on purchasing strategy that is widely cited today as the beginning of the transformation of the function from "purchasing," something that is viewed as highly tactical to procurement or supply management, something that is viewed as very strategic to the business. In the 1990s , Procurement started to become more integrated into the overall corporate strategy and a broad-based transformation of the business function was ignited, fueled strongly by the development of supply management software solutions which helped to automate the source-to-payment process.

According to the Ugandan perspective, the features of the public procurement system prior to the inception of the reform programme in the late 1990s were typical of many developing

African countries that were at one time British colonies or protectorates. Procurement was centralized, with contracts above a threshold value of US$1,000 being awarded by a Central Tender Board in the Ministry of Finance, on the basis of regulations that had been approved in 1977. There were separate tender boards for the Police and Military. Procurement of many items on behalf of ministries was undertaken by the Government Central Purchasing Corporation. The Corporation had been set up by statute in 1990, replacing a central purchasing organisation within the civil service.

While these arrangements offered the advantages of consolidated purchasing and central control, the Central Tender Board was unable to keep pace with the expansion of government activities and their attendant procurement requirements. There was a consequential backlog of tender submissions and the procurement process became protracted. Procurement reforms started in 1997 and culminated into the enactment of the PPDA Act, 2003 Although the Act, was set up to have national (Central and Local) coverage, only the Central Government procurement was under PPDA Act 2003 up to February 2006, when the Local Government Act, Cap 243 section 91–94 were amended to harmonize the higher local government (HLG) procurement institutional arrangement, regulations and procedures with those of the PPDA Act, 2003.

This is currently the principle law governing Procurement and Disposal in both Local governments and Central government. It prevails over all regulations and guidelines relating to procurement at all levels of the public sector in Uganda. It has created a new procurement framework intended to achieve a number of objectives. Firstly, it is to promote economy and efficiency in procurement and disposal activities of all public entities. Secondly it is to ensure public procurement and disposal is conducted in a fair, transparent and non-discriminatory

manner within public entities; and thirdly, to contribute towards the creation of a sound business climate in Uganda.

It is important to note that for over the past decades, public procurement has gained much attention amongst developing countries. Public Procurement accounts for 70% of Uganda's public spending (Wittig, 1999; Government of Uganda, 2006) as cited in Basheka and Bisangabasaija (2010). Kabaj (2003) contends that an efficient public procurement system is vital in 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) argues that the procurement departments of public entities in Uganda are faced with the problem of not having enough information about the procurement procedure, its inputs, outputs, resource consumption and results, and are therefore unable to determine their efficiency and effectiveness.

The PPDA Act prevails overall regulations and guidelines relating to procurement at all levels of the public sector in Uganda Dairy Development Authority inclusive. Dairy Development Authority (DDA) is a statutory body which falls under Entity of Agriculture, Animal Industry and Fisheries (MAAIF). It was established by the Dairy Industry Act, 1998 and was mandated to take up the regulatory and developmental functions of the Dairy Sector. Its operations in the Dairy Industry began on 1st June 2000. Liberalization policies and the subsequent privatization of the Diary Corporation resulted in the need for an independent institution to guide development and regulate the dairy industry; therefore DDA was established by the Dairy Industry Act, 1998 and was mandated to take up the regulatory and developmental functions of the Dairy Sector. Its operations in the Dairy Industry began on 1st June 2000.

It has its operation country wide through the various inspectors and regulators who are in charge of ensuring that all the dairy products on the market meet the required standard. The DDA's principal objective is to facilitate the promotion and control of the production, processing and marketing of milk and dairy products, and to spearhead the diary industry's overall development. In this endeavour, the DDA is responsible for coordinating and implementing all government policies designed to achieve Uganda's self-sufficiency in milk and dairy products.

1.2.2 Conceptual Background

Odhiambo and Kamau (2003) defined Procurement as the purchasing, hiring and obtaining by any other contractual means of goods, constructions, works and services by an entity. Procurement management as such is concerned with three major functions of procurement planning, source selection and contract management and includes functions such as determination and description of requirements, market research, budget and time line estimations, supplier evaluation, negotiation and award of contracts, and all phases of contract administration, (ABA,1979).

According to Prier and McCue (2007), procurement planning involves requirement determination which involves the procurement professionals engaging the user departments in determining the qualities and quantities of their requirements that will be required in a specific period. Source selection refers to the process of receiving bids or proposals and applying the proposal evaluation criteria to select the best evaluated supplier or bidder (Gaarret and Rendon, 2005). Contract management and administration is the process of ensuring that each party's performance meets the contractual requirements (Garret and Rendon, 2005).

Performance can be defined as the results that an organization achieves in relation to its objectives and as the outcome of work because it provides the strongest linkage to the strategic goals of the organization and economic contributions (Bernadin, *et al*, 1995). Performance should therefore be measured by the results that an organization produces (Rist, *et al*, 2005). It covers competence or capability levels as well as achievements (Hartle, 1995). Effectiveness as a performance measure can be used to assess the quality and outcome of service delivery for a level of resources consumed (Wang, 2009).

Contract management focuses on the achievement of three goals of quality products or services, timely delivery or completion of a given project, and within budget, by assessing contract risk, quality assurance and contract termination to avoid delays in performance, disputes and appeals, (Lysons and Farrington, 2006).

1.3 Statement of the Problem

Contracting is a key aspect in the public procurement process and broadly covers issues related to Contract objectives, ability to contract and contract procedures. When State owned Enterprises (SOEs) contract, a number of transaction costs are incurred. These transaction costs include search and information costs, bargaining costs and negotiation/contracting costs (Nort, 1999; Zylberztain, 2003; European Investment Bank, 2007). However, unethical behaviour is evidenced among the procurement practitioners as SOEs carry out procurement contracts. A number of, these include absence of trust among contracting parties and opportunistic behaviour (FMA Act, 2007). According to Nj (2007) opportunism negatively affects contract execution because parties suspect themselves. Issues of trust can be significantly more important in procurement, because contracts involve a higher degree of interdependency between companies and that trust promotes efficiency, productivity and effectiveness (Morgan and Hunt, 1994; La Londe 2002; Handfield, 2002).

The performance of the Procurement and Disposal Unit (PDU) of DDA has for long been unsatisfactory despite the efforts put by the authorities to improve its performance. One of the top management officials of DDA was quoted in the annual staff meeting minutes of 2013 saying that '' DDA's number one problem was, procurement.'' the internal audit report of November 2012, reveals that it takes an average of 2-3 months to conclude an evaluation exercise in the organisation despite the fact that PDU is mandated by section 58 PPDA Regulations 2003, to manage the evaluation exercises and demand timely submission of the evaluation reports.

According to the Procurement and Disposal Audit for DDA for the financial year 2013/2014, it was noted that there areas of potentially high risk to the procurement function which areas can greatly affect overall procurement performance and value for money some of which included contract management, procurement planning, bidding, record keeping, procurement structures to mention but a few. Thus this prompted me to research and find out the factors affecting procurement performance in Dairy Development Authority.

1.4 Purpose of the study

The purpose of the study is to examine the factors affecting procurement performance a case study of Dairy Development Authority.

1.5 Objectives of the study

a) To examine how procurement planning affects procurement performance in Dairy Development Authority

b) To assess how the application of information and communication technology affects procurement performance in Dairy Development Authority

c) To establish how contract management affects procurement performance in Dairy Development Authority

1.6 Research questions

The following research questions shall guide this study:-

a) How does procurement planning contribute to procurement performance in Dairy Development Authority?
b) How does Application of ICT contribute to procurement performance in Dairy Development Authority?
c) How contract management contribute to procurement performance in Dairy development Authority?

1.7 Research Hypotheses

Ho_1: Procurement planning does not affect procurement performance

Ha_1: Procurement planning affects procurement performance

Ho_2: Application of ICT does not affect procurement performance

Ha_2: Application of ICT affects procurement performance

Ho_3: Contract management does not affect procurement performance

Ha_3: Contract management affects procurement performance

1.8 Scope of the Study

This study covered the boundaries of the study in terms of the content, geographical area and the time period.

1.8.1 Content Scope

The study focused on the factors affecting procurement performance with emphasis on procurement planning, contract management and administration and ICT adoption, these being the dimensions of the independent variables, while procurement performance was the dependent variable under procurement performance looked at efficiency, effectiveness and quality.

1.8.2 Geographical Scope

The study focused on the factors affecting procurement performance in Dairy Development Authority Head Office in Kampala. This was because this is where the all the organization's procurement is done and the key decision makers in respect to procurement issues are found. The head office is located at Kafu road plot 1 Kampala. DDA head office was selected because it was within the researcher's locality where she was certain of its geography and the rapport with the staff was well established this therefore helped the researcher to ease her movement and accessibility to information.

1.8.3 Time Scope

The study focused on the period from 2010 to 2014. This is because this is when DDA invested a lot of resources in its procurement unit. According to the audit report 2013-2014, it showed that there was failure to seek Contracts Committee approval in the procurement of a provider for Management of Busia Milk Collection Centre, implying that lack of contracts committee approvals indicates a weak internal control system in the procurement process.

1.9 Conceptual Frame work

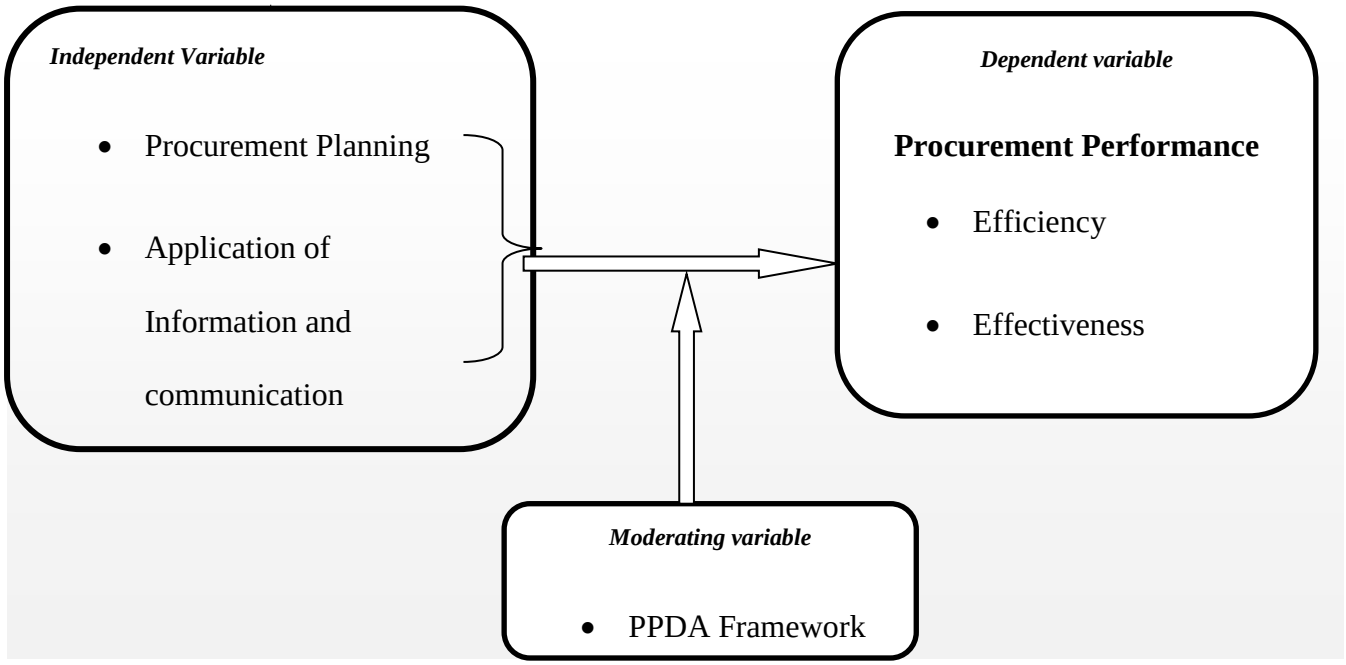
Conceptual frameworks (theoretical frameworks) are a type of intermediate theory that attempt to connect to all aspects of inquiry (such as .problem definition, purpose, literature

review methodology, data collection and analysis). Conceptual frameworks and can act like maps that give coherence to empirical inquiry.

Uma Sekaran (4th Edition) defined the conceptual or theoretical framework as a conceptual model of how one theorizes or makes logical sense of the relationships among the several factors that have been identified as important to the problem.

This conceptual frame work shows the gap that exists between the two variables which have been answered through in chapter Four (Results and Findings). The gaps were seen and completely analyzed to merge the two variables.

Figure 1-1 : Conceptual Frame work showing the factors affecting procurement performance a case study of Dairy Development Authority



Source: Adopted and modified from *Procurement and Disposal Audit report for DDA for the financial year 2013/2014*

The conceptual framework represents the various factors that affect procurement performance with specific focus on: - Procurement Planning, Application of ICT and Contract

Management as the independent variables and procurement performance is the dependent variable. It clearly presents the linkage between the independent, dependent and moderating variable that the study focused on. The study conceptualized that procurement performance the dependent variable, was measured in terms of efficiency, effectiveness, timeliness and quality. The independent variable, Factors affecting procurement performance was measured by Procurement Planning, Information and communication technology and Contract management among others and the moderating variable the PPDA framework which was key in checking the neutrality of the dependent variable and independent variable.

1.10 Significance of the Study

It is hoped that the outcome of the study would bring about a better understanding and profile the procurement function in DDA and its contribution to the performance of government institutions. In the same vain, we hoped that the study would enable DDA management to appreciate the strategic role of procurement in ensuring attainment of organizational goals and objectives.

Similarly, the outcome of the study would be a basis to make recommendations to DDA management on the best procurement practices that can be adopted to further enhance its competitive position in line with procurement performance within the economy of Uganda.

The report would provide a basis for future policy formulation, future research and be used as a reference for future scholars to further investigate the role of procurement management in the performance of government institutions by filling the knowledge gaps.

Last but not least the study would greatly enhance the researcher's ability to undertake further research in similar areas, greatly contribute to the academic body of knowledge and enable the researcher to be awarded a Masters of Business Administration degree of Uganda Martyrs University Nkozi.

The outcome of study will help identify further research areas to fill the knowledge gap by emphasizing on the factors affecting procurement performance in government entities. For one to measure performance, one must know what the definition of success is in order to make correct measures to achieve this goal. Without a general agreement on how to measure success, departmental managers will manage their resources by nothing more than their perceived intuition.

1.11 Justification of the Study

Many government institutions and programs have tended to perform poorly due to a number of reasons such as poor planning, lack of training in the area of ICT and poor contract management and execution. Rotich (2011) admits that the evaluation or measurement of procurement performance has always been a disturbing problem for procurement professionals. He asserts that traditionally, firms concentrate on analysing 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. This implies that such

a problem requires establishment of clear procurement procedures and performance standards in various entities.

Similarly, Kakwezi and Nyeko (2010) argue that procurement performance is not usually measured in most Procurement entities (PEs) as compared with the human resource and finance functions. They conclude in their findings that failure to establish performance of the procurement function can lead to irregular and biased decisions that have costly consequences to any public procuring entity. Therefore, this study was conceived by the limited scientific literature documenting the relationship between procurement performance and factors such planning, Application of ICT, and contract management more specifically at DDA.

1.11 Operational Definitions

Procurement performance

The extent of cost consideration valuations in procurement is determined by the organisation's performance. Procurement performance is the procedure firms use to buy economic resources and business input from suppliers or vendors. This procedure helps firms negotiate prices and obtain the best high quality practical information on production processes.

Procurement performance includes the broad performance functions of planning, organization, and leadership, staffing, controlling, and communicating procurement processes and activities across the spectrum of the 'upstream' supply chain activities of both public and private organizations.. Procurement; and its performance, is one of the activities of the supply chain. Two broad sectors of the economy do exist-public and private sectors; and procurement take place in both sectors (Byokusheka, 2008). Owners are thought to enter

business for mainly two basic reasons; profit or growth maximisation and personal fulfilment (Wang, *et al* 2007).

Public procurement is confronted by a number of central challenges. Public procurement must contribute to the continuous development of the welfare society by: becoming ever more efficient; focusing on issues of sustainability; securing that competition is maintained locally as well as globally; maintaining its own position in an ever changing local, national, and international political context.

Efficiency and effectiveness

According to Thai (2001), 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).

Procurement planning

According to Basheka (2008) procurement planning is the primary function that sets the stage for subsequent procurement activities. A mistake in procurement planning has wide implications for local governance, measured from the two indicators of accountability and participation. According to James (2004), procurement planning endeavors to answer the questions of what do you want to procure; when to procure it; where to procure them from; when the resources be available; the methods of procurement to be use; how timely procurement or failure will affect the user of the item(s); the procuring and disposing entity; efficient in the procurement process; and the people to be involved in the procurement.

The UN Procurement Practitioner's Handbook (2006), further adds that, the ultimate goal of procurement planning is coordinated and integrated action to fulfil a need for goods, services or works in a timely manner and at a reasonable cost. Early and accurate planning is essential to avoid last minute, emergency or ill-planned procurement, which is contrary to open, efficient and effective – and consequently transparent – procurement. In addition, most potential savings in the procurement process are achieved by improvements in the planning stages.

Procurement planning had any significant value, the study results were in the affirmative. It was found out that procurement planning was a key to decentralized governance, it added value, and above all it resulted into compliance of the set processes (Kakwezi, 2010). According to Chandra (2008), poor planning is a major constraint in successful implementation of public projects culminating in projects becoming uneconomical as a result of time and cost over-runs.

Information and Communication Technology

Information Technology is the hardware, software, and telecommunications that facilitate the acquisition, processing, storage, delivery, and sharing of information and other digital content in an organization. **E-procurement** is the business-to-business or business-to-consumer or business-to-government purchase and sale of supplies, work, and services through the Internet as well as other information and networking systems, such as electronic data interchange and enterprise resource planning.

The e-procurement value chain consists of indent management, e-Tendering, e-Auctioning, vendor management, catalogue management, Purchase Order Integration, Order Status, Ship Notice, e-Invoicing, e-Payment, and contract management. E-procurement is an important element of supply chain management systems and help organizations efficiently manage their purchasing cycle times and maximize profit on every purchase order (Neef, 2001).

Public sector organizations use e-procurement for contracts to achieve benefits such as increased efficiency and cost savings (faster and cheaper) in government procurement and improved transparency (to reduce corruption) in procurement services. E-procurement in the public sector has seen rapid growth in recent years and greatly improved the accessibility of tenders.

Government officials and elected leaders have increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector. Faced with tight budgets and a retiring workforce, today's government agencies are operating in an environment defined by the need to 'do more with less'. Public authorities are expected to provide excellent service to their constituents in an effective and transparent manner, all the while working under constant resource constraints by adopting ICT (Hagén, and Zeed, 2005).

Contract management

Contract management is the management of contracts made with customers, vendors, partners, or employees. Contract management includes negotiating the terms and conditions in contracts and ensuring compliance with the terms and conditions, as well as documenting and agreeing on any changes or amendments that may arise during its implementation or execution. It can be summarized as the process of systematically and efficiently managing contract creation, execution, and analysis for the purpose of maximizing financial and operational performance and minimizing risk (Davila,2002). According to Great real systems (2002), Purchasing spend is a major cost to any organisation. The proportion of spending that is influence able by the purchasing department often varies, but if managed properly, this can have a significant effect on financial performance and profitability.

Procurement Performance

Measuring performance of PDEs has been increasingly recognized as a critical factor in gaining competitive advantage (Simchi- Levi *et al,* 2000). Earlier studies utilized several different performance measures including cost, customer responsiveness, and time (Arntzen *et a*l, 1995). In this framework, two types of performance measures have been adopted as the necessary components of PDEs procurement performance measurement system: i.e.; Efficiency and Effectiveness (Kulatuga *et al,* 2007).

PPDA framework

The PPDA Act, 2003**.** This is the principle law governing Procurement and Disposal in both Local governments and central government Procurement. It prevails over all regulations and guidelines relating to Procurement at all levels of the public sector in Uganda. It was enacted by the Government of Uganda as 'The Public Procurement and Disposal of Public Assets

Act' and it came into force on 21 February 2003. It replaced and repealed Statutory Instrument No. 64 of 2000. The act is made up of 99 sections and 5 Schedules. The PPDA Act applies to: All public finances; All Resources such as: Counterpart transfers and co-financing; and Non-governmental entities which benefit from public funds. It puts across guidelines and regulations pertaining to procurement activities in Uganda.

1.12 Conclusion

The chapter above presented the key understandings of the study at hand in these were the statement of the problem, study objectives, scope, significance, justification and the conceptual framework of the study. The objectives included; to examine how staff skills and academic qualifications affect procurement performance in public sector organisations, to assess how the application of information and communication technology affects procurement performance in public sector organisations and to establish how contract management affects procurement performance in Public Sector organisations. The objectives were duly informed by the scope, significance, justification auxiliary to the conceptual framework of the study using the case of DDA. In lieu of the above these were key in informing chapter two below.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the existing and related literature on the study variables and the interrelations among them as put forward by various researchers and scholars' .Actual literature review is carried out on each of the operational variables so as to establish the possible relationship and gaps in previous studies examined. The literature is arranged according to the objectives of the study.

2.2 Theoretical review

Contingency Theory

Contingency theory is an outgrowth of systems design. Jay Galbraith (1973) states that in contingency theory, there is no one best way to organize and any way of organizing is not equally effective. Contingency theory means that one thing depends on other things, and for organizations to be effective, there must be a "goodness of fit" between their structure and the conditions in their external environment. As such the correct management approach is contingent on the organization's situation (Daft 2001). This study accepts the notion of contingency theory, which suggests that the selected PMS design and use must conform to its contextual factors (Pugh, 2008).

However, for the purpose of this study, contingency theory is used and reviewed in a narrower focus as follows. Contingency theory represents a rich blend of organizational theory such as organizational decision making perspectives and organizational structure (Lawrence and Lorsch, 1969; and Donaldson, 2001). The essence of the contingency theory

paradigm is that organizational effectiveness results from fitting characteristics of the organization, (such as its cultures) to contingencies that reflect the situation of the organization (Lawrence and Lorsch, 2004). According to Donaldson (2001), organizations seek to attain the fit of organizational characteristics to contingencies which leads to high performance. Therefore the organization becomes shaped by the contingencies (fit) to avoid loss of performance. Thus, there is an alignment between organization and its contingencies, creating an association between contingencies and organizational contextual characteristics (Burn and Stalker, 1961, Woodward, 2001).

Contingency theory is based on the premise that there is no universally appropriate or perfect measurement system which applies equally to all organizations in all circumstances. In fact, it is suggested that particular features of an appropriate measurement system will depend upon the specific circumstances in which an organization finds itself. The study position is that contingency theory offers a useful way of conceptualizing the relationship between certain "contingency" variables and organization structure (PMS design and use). In the view of contingency theorists, the design of accounting information and control systems, i.e. one particular type of PMS, is based upon specific characteristics of the organization and its environment.

Contingency theory is essentially a theoretical perspective within organizational theory that emphasizes how contingent characteristics or contextual factors (Daft, 2001) such as technology, size, environment, culture and strategy affect the design and functioning of organizations (Covaleski, Dirsmith & Samuel, 2006). This theory is relevant to the study because one thing depends on another thing to be effective hence for effective procurement measures the organization needs to have strategic measures put in place in procurement department

According to this theory it denotes that one thing depends on other things. E.G for organizations to be effective, there must be a “goodness of fit” between their structure and the conditions in their external environment. Therefore for effective procurement measures the DDA needs to have strategic measures put in place in procurement department which measure are informed by external and internal factor. These have been clearly described in the Literature review that Organizations such as DDA must have a strategic measure put in place to make informed decisions in regards to procurement which measures ought to put into consideration both the internal and external factors as well as various stakeholders whose input greatly affects the performance of the procurement function.

Theory of Internal Control

This theory was developed by Travis Hirschi (hereinafter, 'Hirschi') in 1969. A system of effective internal control is a critical component of an organization’s management and a foundation for its safe and sound operation. A system of strong internal control can help to ensure that the goals and objectives of an organization will be met, that it will achieve long-term targets and maintain reliable financial and managerial reporting. Such a system can also help to ensure that the organization will comply with laws and regulations as well as policies, plans, internal rules and procedures, and reduce the risk of unexpected losses and damage to the organization’s reputation. The following presentations of internal control in essence cover the same ground. In USA, the Committee of Sponsoring Organizations of the Tread way Commission (COSO) issued Internal Control Integrated Frame working 1992, which defined internal control as a process, effected by an entity’s board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: Effectiveness and efficiency of operations;

Reliability of financial reporting; Compliance with applicable laws and regulations. The Rutteman Report (1994) in UK defined internal control as the whole system of controls, financial and otherwise, established in order to provide reasonable assurance of Effective and efficient operations; Internal financial control and Compliance with laws and regulations. The theory is relevant to the study because it outlines the internal control policies, procedures and rules to be followed in the procurement department.

For purposes of the study, the theory of internal control informed the study most. This is because a system of strong internal control helps to ensure that the goals and objectives of an organization will be met, that it will achieve long-term targets and maintain reliable financial and managerial reporting. DDA needs to ensure strict compliance with laws and regulations as well as policies, plans, internal rules and procedures, and reduce the risk of unexpected losses and damage to the organization's reputation. That is to say strict compliance to the laid down internal standard operating procedures as well as the PPDA rules and regulations enables DDA monitor performance of its procurement function to enhance overall performance hence minimizing risk. The different internal controls put in place help procurement personnel assess their individual performance and the Authority to identify and recommend targeted actions towards the key performance areas that are weak and require additional support.

2.3 Overview of procurement in Uganda

Procurement reforms in Uganda started in1997 and culminated into the enactment of the Public Procurement and Disposal of Public Assets (PPDA) Act, 2003. Although the PPDA Act, was setup to have national (Central and Local) coverage, only the Central Government procurement was under PPDA Act 2003 up to February2006, when the Local Government Act, Cap 243 section 91–94 were amended to harmonize the Higher Local

Government (HLG) procurement institutional arrangement, regulations and procedures with those of the PPDA Act,2003. This is currently the principle law governing Procurement and Disposal in both Local governments and Central government. The PPDA Act prevails overall regulations and guidelines relating to procurement at all levels of the public sector in Uganda. It has created a new procurement framework intended to achieve a number of objectives. The first objective is to promote economy and efficiency in procurement and disposal activities of all public entities, secondly ensure public procurement and disposal is conducted in a fair and finally transparent and non-discriminatory manner within public entities; and to contribute towards the creation of a sound business climate in Uganda.

It is important to note that for over the past decades, public procurement has gained much attention amongst developing countries. Public Procurement accounts for 70% of Uganda's public spending (Wittig, 1999; Government of Uganda, 2006) as cited in Basheka and Bisangabasaija (2010). Kabaj (2003) contends that an efficient public procurement system is vital in 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) argues that the procurement departments of public entities in Uganda are faced with the problem of not having enough information about the procurement procedure, its inputs, outputs, resource consumption and results, and are therefore unable to determine their efficiency and effectiveness. The PPDA Act prevails overall regulations and guidelines relating to procurement at all levels of the public sector in Uganda Dairy Development Authority inclusive.

2.4 Factors Affecting Procurement Performance

2.4.1 Procurement Planning

According to Agaba & Shipman, (2007), procurement planning is the process used by companies or public institutions to plan purchasing activity for a specific period of time. This is commonly completed during the budgeting process. Each year, departments are required to budget for staff, expenses, and purchases. This is the first step in the procurement planning process. The Economic commission of Africa (2003) defines procurement planning as the purchasing function through which organization obtain products and services from external suppliers. A good procurement plan will go one step further by describing the process you will go through to appoint those suppliers contractually. Whether you are embarking on a project procurement or organizational procurement planning exercise, the steps will be the same. First, define the items you need to procure, define the process for acquiring those items and schedule the timeframes for delivery.

Procurement planning is a process of determining the procurement needs of an entity and the timing of their acquisition and their funding such that the entity's operations are met as required in an efficient way. As a function, procurement planning endeavours to answer the following questions; what do you want to procure? When do you want to procure it? When are you to use the procurement? Where will you procure them from? When will the resources be available? Which methods of procurement will you use? How will timely procurement or failure affect the user of the item(s) and the entire organization? How can you be more efficient in the procurement process? Who will be involved in the procurement?

Basheka, (2008), states that procurement planning is the primary function that sets the stage for subsequent procurement activities. It "fuels and then ignites" the engine of the procurement process. A mistake in procurement planning therefore has wide implications for

any organization whether public, private or third sector organization, measured from the two indicators of accountability and participation. Procurement planning is a legal requirement in Uganda. Section 34 (2) of the Public procurement and Disposal of Public Assets Act, 2003 and Local Government Regulation 62 of 2006 require the user department to prepare a work plan for procurement based on the approved budget and submit it to PDU for orderly execution, Section 31 (f) requires a procurement unit to plan the procurement activities of the entity. In a number of cases, people do assume that procurement planning is a onetime event.

Van Wheel (2005) defines procurement planning as the process of determining the procurement needs and the timing of their acquisition and funding such that the entire operations are met as required in an efficient way. He adds that it generates power that propels the engine of the procurement process. Thus a mistake in procurement planning may culminate into diverse implications in the organization that may deter its progress.

2.4.2 ICT Adoption

ICT has sped up the pace of globalization and increased the complexity of business practices because firms do not only need to be familiar with their local context but also global developments. Thus, to compete in the knowledge economy, countries need strong ICT-literate skills based that can innovate and adapt quickly to change (Kogilah *et al,* 2008). More value is placed on the knowledge; change and globalization are the driving forces of the new economy (Lin, 2009)

Today, e- Procurement within government is recognized as one of the main areas in the Government- to- business (G2B) category, and receives much attention from researchers (Turban and King, 2003), being also called electronic public procurement. UK National e-Procurement Project Report (2004) notes e- Procurement is a tool to enable procurement

activities, including sourcing, ordering, commissioning, receipting and making payments for the whole spectrum of an authority's activities.

2.4.3 Contract Management

Contracts specify the terms and arrangements for carrying out economic exchange. The term contract "refers to a formal written arrangement between two or more competent parties, which creates obligations, whereby one party becomes bound to another to do or omit to do certain acts that are the subject of that contract" (Blomqvist et al, 2005).

Contract Management is the supervision of contracts made with customers , vendors, partners or employees (Hefetz and Warner, 2004). Contract Management includes negotiating the terms and conditions in contracts and ensuring compliance with the terms and conditions ,as well as documenting and agreeing any changes that may arise during its execution (Moe,1996). Common commercial contracts include employment letters, sales invoices, purchase orders, and utility contracts. Complex contracts are often necessary for construction projects, goods or services, property agreements and international trade. The importance of contract management to the success of the contract and to the relationship between customer and provider should not be underestimated . Clear administrative procedures ensure that all parties to the contract understand who does what, when, and how. The contract documentation itself must continue to accurately reflect the arrangement and changes to it carefully controlled.

2.5 Procurement Performance

In order for an organization to achieve its goals of satisfying its customers, it must measure its performance. Among key areas to be measured is procurement performance. But there is no best way to measure procurement performance for example Syson (1995) states that "one of the problems that arises in respect of the procurement function, is that there is no common

opinion on what should be measured". However it is broadly accepted by scholars like (Kotter, 1978; Neely, 1999; Knudsen, 1999; Cavinato and Kauffman, 1999; Van Weele, 2000) who assert that procurement performance can be measured by using two dimensions i.e. Efficiency and effectiveness. Efficiency measures how successfully the inputs have been transformed into outputs while Effectiveness measures how successfully the system achieves its desired output (Kumar, 2005). Effective procurement practices offer high level of transparency, accountability and value for money while efficient procurement practices are those that meet the needs of customers, achieve optimum conditions and value in regard to allocation of scarce taxpayers resources, efficient use of public resources, manage risk and pose a less liability to the public(ministry of fence handout 2004; Mbabazi et al, 2008) Performance can be defined as the results that an organization achieves in relation to its objectives and as the outcome of work because it provides the strongest linkage to the strategic goals of the organization and economic contributions (Bernadin, et al, 1995). Performance should therefore be measured by the results that an organization produces (Rist, et al, 2005). It covers competence or capability levels as well as achievements (Hartle, 1995). Performance is the ability of an organisation to operate efficiently, profitably, survive, grow and react to opportunities and threats (Stoner, 1997).

According to Dixon et al (1990) appropriate performance measures are those which enable organizations to direct their actions towards achieving their strategic objectives. On the other hand (Stoner, 2003), refers to performance as the ability to operate efficiently, profitably, survive, grow and react to opportunities and threats (Stoner, 1997). Procurement Performance has increasingly become prominent in the print and electronic media underlining how public entities handle the entire process. Despite its importance, limited research has been undertaken to examine the factors that influence Procurement Performance. Regardless of the recognition of value of procurement in various sectors, poor performance of certain sectors

has been registered as evidenced in the various literature and studies carried out. The Organisation for Economic Cooperation and Development (OEDC) estimated the value of the government procurement market to be US$2,000 billion in 1998, which was equivalent to 7% of world gross domestic product (GDP) and 30% of world merchandise trade (Organisation for Economic Cooperation and Development, 2002). It has been estimated that between US$30 to US$43 billion could be available in the procurement marketplace in Sub-Saharan Africa (Wittig, 1999). Most industrialized countries spend at least 10% of their GDP on public procurement (Trionfetti, 2003).

2.5.1 Efficiency

Is the ability to do something or produce something without wasting materials, time or energy? It can also be the quality or degree of being efficient (Merriam-Webster, 2014). Effectiveness on the other hand is the capability of producing a desired result. It is also a state of achieving a level of input-output conversion with less effort on the part of the organization using less equipment or lower expenditure. According to Luke Moseley and Asker E. Jeukendrup (2001) efficiency is a measure of effective work and is most commonly expressed as the percentage of total energy expended that produces work. Efficiency has been suggested to be an important factor in relation to performance. Also according to Baldamus W. (2013), to maximize efficiency is desirable and the chief purpose of employee performance. Efficient conduct is preferable to inefficiency. It is therefore assumed that efficiency is inseparably associate with productivity and performance which is equally valued and desirable goal of an organization. Therefore social problems of efficiency are ultimately problems of the control of human effort. Efficiency is therefore equally beneficial to management and employees (Baldamus, 2013).

2.5.2 Effectiveness

Effectiveness is sometimes called success and is referred to as goal attainment. It can also be viewed in terms of productivity. Which refers to the extent to which the organization accomplishes its various missions and the success of the organization in maintaining or expanding itself. (Basil S. George Opoulos and Arnold S. Tannenbaum, 1957). Effectiveness as a performance measure can be used to assess the quality and outcome of service delivery for a level of resources consumed (Wang, 2009).

Overtime a growing stream of literature provides evidence that the use of multidimensional performance measures contributes to the effectiveness (Crabtree and DeBusk, 2008; Braam and Nijssen, 2004; Davis and Albright, 2004; Ittner *et al.*, 2003) most of the studies reviewed the effectiveness of performance from the perspective of their contribution to the company's employee performance.

2.5.3 Quality

Quality of work done is one of the elements used to evaluate procurement performance. It is also known as the standard of a task undertaken against the standard expected to be achieved for the same work. (Jadeacres, 2014). Quality has to be something that is considered from the beginning and built into everything an organization does. Planning carefully, monitoring ones work and constant revaluation and adjustment are all extremely important. One cannot ensure quality by catching mistakes before they reach the customer: one only ensure this by setting up a system in which mistakes are minimized or eliminated. Everyone in the organization ought to understand and adopt this point of view for them to obtain quality performance.

Jadeacres also further states that for quality to be achieved, everyone in the organization has to work together towards a common goal or goals. That means team work, cooperation and mutual support throughout the organization. All interactions among departments within the

organization should be mutually helpful and aimed at achieving the best performance of the organization as a whole.

2.6 Procurement Planning and procurement performance

According to Agaba & Shipman, (2007), procurement planning is the process used by companies or public institutions to plan purchasing activity for a specific period of time. This is commonly completed during the budgeting process. Each year, departments are required to budget for staff, expenses, and purchases. This is the first step in the procurement planning process. The Economic commission of Africa (2003) defines procurement planning as the purchasing function through which organization obtain products and services from external suppliers. A good procurement plan will go one step further by describing the process you will go through to appoint those suppliers contractually. Whether you are embarking on a project procurement or organizational procurement planning exercise, the steps will be the same. First, define the items you need to procure. Next, define the process for acquiring those items. And finally, schedule the timeframes for delivery.

According to James (2004), procurement planning endeavours to answer the questions of what do you want to procure; when to procure it; where to procure them from; when the resources be available; the methods of procurement to be use; how timely procurement or failure will affect the user of the item(s); the procuring and disposing entity; efficient in the procurement process; and the people to be involved in the procurement.

Procurement is thus one part of the commissioning process. It refers to a specific method of purchasing services which involves tendering for a contract. Sometimes it is more appropriate for a public body to fund a service through the provision of a grant, but then it will have less control over the precise outcomes to be delivered. The procurement objective is to provide quality goods and services through open and fair competition in the exact quantity and proper

quality as specified; and has to be delivered at the time and place where needed. Therefore, to secure such goods and services at competitive prices requires accurate planning and involvement of a number of stakeholders. It is worthy to note that any procurement begins with the planning decision to make the purchase. This will involve deciding whether there is a need for the particular goods or services and will equally involve ensuring that the purchaser has the legal powers to undertake the transaction, obtaining any relevant approvals within the government hierarchy and arranging the necessary funding (Arrowsmith, Linarelli & Wallace, 2000).

Mullins, 2003 has previously argued that procurement planning is a process of determining the procurement needs of an entity and the timing of their acquisition and their funding such that the entities operations are met as required in an efficient way. As a function, procurement planning endeavours to answer the following questions: (a) what do you want to procure? (b) When do you want to procure it? (c) When are you to procure and when will you use the procured goods, services and works the procurement? (d) Where will you procure them? (e) When will resources be available? (f) Which methods of procurement will you use? (g) How will timely procurement or failure affect the user of the item(s) and the public procuring and assets disposal entity? (h) How can you be more efficient in the procurement process? And (i) who will be involved in the procurement? (Basheka, 2008). It has been argued that planning is not concerned with future decisions but rather with the future impact of decisions made today and thorough planning is critical as agencies are always facing budget constraints that cannot satisfy all capital acquisition needs (Drabkin & Thai, 2003).

Mawhood, (1983) contends that during procurement planning, the procuring unit brings about effective integration of the diverse decisions and activities of members on the technical planning committee not only at a point of time but also over a period of time. It is by reference to the framework provided by planning that members on the technical planning

committee make major decisions on local government activities, in an internally consistent manner.

Johan (2006) further came up with some important service delivery improvement slogans. He said he who fails to plan for service delivery, plans to fail delivering services to the public. And if it cannot be measured, it cannot be improved. If we only plan to comply with regulations, we are not managers, we are robots. What we plan we must implement. What we implement, we must monitor. We should not be afraid to ask the customer (citizens). They really do know best what they need and what they get. It is not always the same thing.

Mullins (2003) asserts that the contribution of procurement planning in facilitating an efficient and effective service delivery in public sector organizations is generally undisputed in both developed and developing countries. Its contribution can be at both central and local government levels of public sector management. His findings revealed a significant positive relationship between procurement planning and service delivery in local government procurement systems in Uganda. These results are compared to international research findings, and suggestions are offered for management, policy making, and future research.

Procurement Policy Manual (2009), procurement planning drives different expected results which are different from business as usual such as: reduction in the number of overall contract awards, understanding and managing total cost of ownership, more purchasing options (lease vs. buy) , data-driven decision making, improved risk mitigation prior to award, more identification of opportunities where suppliers can add value, improved relationships with suppliers which leads to improved service delivery

Mawhood (1983) further adds that effective procurement planning is an important route towards securing the right service to be delivered to the public, and also maximizing the level of service provision which can be achieved within the local Supporting People. A procurement plan helps Procuring Entities to achieve maximum value for expenditures on services to be delivered and enables the entities to identify and address all relevant issues

pertaining to a particular procurement before they publicize their procurement notices to potential suppliers of goods, works and services. This will help enhance performance of procurement in any organisation requires that the individuals handling the procurement activity have the necessary professional qualifications. According to the Public Procurement and Disposal of Public Assets (PPDA) Act 2003, a Procurement Officer is a person who undertakes the process of procurement and disposal activities in accordance with existing procedures and laws. Van Wheel (2005) defines procurement planning as the process of determining the procurement needs and the timing of their acquisition and funding such that the entire operations are met as required in an efficient way. He adds that it generates power that propels the engine of the procurement process. Thus a mistake in procurement planning may culminate into diverse implications in the organization that may deter its progress.

Basheka (2008), states that procurement planning is the primary function that sets the stage for subsequent procurement activities. It "fuels and then ignites" the engine of the procurement process. A mistake in procurement planning therefore has wide implications for any organization whether public, private or third sector organization, measured from the two indicators of accountability and participation. According to appropriation law, government agencies cannot spend until the budget is appropriated by the legislature and apportioned by the central budget office. But as procurement is a long and time-consuming process, contract planning should "begin as soon as the agency need is identified, preferably well in advance of the fiscal year in which contract award is necessary" Procurement planning is a legal requirement in Uganda. Section 34 (2) of the Public procurement and Disposal of Public Assets Act, 2003 and Local Government Regulation 62 of 2006 require the user department to prepare a work plan for procurement based on the approved budget and submit it to PDU for orderly execution, Section 31 (f) requires a procurement unit to plan the procurement activities of the entity. In a number of cases, people do assume that procurement planning is a one-time event.

Mullins (2003) argued that procurement planning is a process of determining the procurement needs of an entity and the timing of their acquisition and funding such that the entity's operations are met as required in an efficient way. All procurements begin with planning which involve ensuring that the purchaser has the legal powers to undertake the transactions, obtaining any relevant approvals within the organizational hierarchy and arranging the necessary funding. (Arrow *et al.*,2000). The process includes defining missions and objectives through statements that affirm how the organization sees its purpose. Fundamentally, strategic planning is the road map intended to help an organization respond to new challenges and develop future opportunities.

Although the procurement planning should start well in advance of the fiscal year in which contract award is necessary, the real procurement action will not commence until the user agency prepares and forwards a procurement request (PR) to the PDU. The purpose of a PR is to provide the procurement professional (or contract specialist or contracting officer) with the information and approvals necessary for initiating procurement. When preparing the PR, user departments should consult with the procurement staff. The more the user department consults with procurement professionals, the more precise the approvals will be. As this will enable the user know whether the item they intend to purchase was planned for and approved. A procurement that starts with a defective PR is likely to be troublesome at some point in the process. (PPDA Act, 2003)

Basheka (2008), asserts that the contribution of procurement planning in facilitating an efficient and effective service delivery in public sector organizations is generally undisputed in both developed and developing countries. Its contribution can be in both public and private sector organizations. His findings revealed a significant positive relationship between procurement planning and service delivery in local government procurement systems in

Uganda. These can be used in relation to this study to see how procurement management affects performance at DDA. The purpose of this planning is to ensure that the procurement agents meet the agency's needs in the most effective, economical, and timely manner.

Thai (2004) contends that to remain competitive, companies are constantly faced with challenges to: reduce time-to-market, improve product quality, and slash production costs and lead times. These challenges cannot be effectively met merely by changes within specific organizations or organizational units, but also manage the procurement planning within the organization that cuts across functional units and activities by extending the value chain/supply chain management concepts. This idea is supported by Kumaraswamy *et al.*, (2000) who observed that, the welfare of any business entity in the supply chain directly depended on the performance of the others, along with their willingness and ability to coordinate which can be considered as the essence of supply chain management.

Evenettz (2005) raised the concern that procurement planning enables the identification of major investment expenditures, which in turn facilitates budgetary decision-making. It is difficult to imagine how a state can deliver substantial improvements in the well-being for its citizens without a public expenditure system that includes effective public procurement policies. If there is no budget or cost expectation for a product or service then it is impossible to determine whether any procurement activity has exceeded, equalled or fallen short of that expectation. In addition to that if a budget or expectation has been set then the procurement professional or team is tasked with managing that expectation and needs to understand it and the method by which it will be measured.

Failure to be involved and /or understand this goal setting process leads to an inability to devise a methodology for achieving it, which in turn leads to a lack of focus for forthcoming activities and ultimately little chance of controlling cost. Moreover, adequate guidelines and

communication channels through various contractual arrangements are important to control the process so that the organizational goals of budget, schedule and quality management can be achieved. Likewise, for the successful execution of a project, effective planning is essential and involves successful scheduling, budgeting, availability of materials, and logistics among others.

Pheng, (2007) advocates that project / activity time management entails adequate planning to predict when a project/ activity will end. He further contends that project/ activity cost management involves the process of calculating the costs of the identified resources needed to complete the project / activity, taking into consideration the possible fluctuations, conditions and other causes of variances that could affect the total estimated cost. Basheka, (2008) argues that proper planning for the 34% huge expenditure on local governments in Uganda is an essential element of good procurement. He further contends that to secure goods and services at competitive prices requires accurate planning and that core procurement planning practices are embedded in all local government procurement systems, and the importance of procurement planning must be rigorously shared among the stakeholders.

Industry Manual, (2008) counsels that a procurement plan is an instrument for implementation of the budget and should be prepared by the user departments with a view to avoiding or minimizing excess votes in the entities' budgets and to ensure that procurements do not proceed unless there are funds to pay for them. This implies that all procurement plans must be well integrated into the budget process based on the indicative budget as appropriate and in compliance with the procurement law. Agreeably Mamiro (2010) 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.

2.7 Information Communication Technology adoption and procurement performance

Today, e- Procurement within government is recognized as one of the main areas in the Government- to- business (G2B) category, and receives much attention from researchers (Turban and King, 2003), being also called electronic public procurement. UK National e-Procurement Project Report (2004) notes e- Procurement is a tool to enable procurement activities, including sourcing, ordering, commissioning, receipting and making payments for the whole spectrum of an authority's activities. ICT has sped up the pace of globalization and increased the complexity of business practices because firms do not only need to be familiar with their local context but also global developments. Thus, to compete in the knowledge economy, countries need strong ICT-literate skills based that can innovate and adapt quickly to change (Kogilah *et al,* 2008). More value is placed on the knowledge; change and globalization are the driving forces of the new economy (Lin, 2009)

Procurement on a general level essentially involves commerce between two or more businesses and is such an important element of business operations that a clear strategy is imperative. This has led to much investigation of means to streamline the industrial procurement process to enhance organisational performance. From a strategic perspective procurement can encompass "the entire operation including a company's requisitioning, transportation, warehousing, and in-bound processes" (Nevalainen, 2001), especially where the dominant goal is process efficiency (Aldin *et al.,* 2004). In order to achieve such efficiencies, in industrial circles technology-enabled commerce has been commonplace through electronic data interchange (EDI). Also De Boer *et al.* (2002) notes that, however,

that complexity and inefficiency of these traditional electronic data interchange procurement systems can stifle their usefulness.

Information Technology is composed of both computer hardware and software and telecommunication through the use of internet and World Wide Web. It has a significant effect on the procurement process and procedures. ICT has been applied in the procurement function to enhance the efficiency and effectiveness of the function and streamline business processes. E-procurement is seen as a means to competitive advantage (Heywood *et al.*, 2002) hence reduced business costs. It allows businesses to focus more management time on serving customers and earning revenue through reduced lead times.

E-procurement lacks an overarching definition yet it encompasses a wide range of business activities. In one instance; Chopra *et al.* (2001) state that e-procurement remains a first generation concept aimed at buyers, which should progress into e-sourcing and later into e-collaboration. This allows customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Lee and Whang, 2001*)*.E- Procurement (or Business- to- Business networks) is an online system by which companies can be connected directly to suppliers for the purpose of buying products and services at the lowest cost possible. e- Procurement essentially replaces its offline version, called tender. The advantages and disadvantages of e- Procurement mostly parallel the universal benefits and disadvantages of the internet.

Internet has been widely adopted by companies with the aim of improving performances both in internal processes and in processes going beyond their boundaries (Bartezzaghi and Ronchi, 2005). Although business-to-business trade has enjoyed a quieter existence online than business-to-consumer (Barratt and Rosdahl, 2002) the benefits of electronic procurement in a business to business setting are significant (Min and Galle, 2003). In general it has been

claimed that: electronic procurement has turned out to be the catalyst that allows companies to finally integrate their supply chains from end-to-end, from supplier to the end user, with shared pricing, availability and performance data that will allow buyers and suppliers to work to optimum and mutually beneficial prices and schedules. Electronic procurement is the key to collaborative commerce and success in the extended enterprise for many people according to – the "Holy Grail" of production specialists everywhere (Neef, 2001).

E- Procurement applications focus on creating efficiencies; their goal is to make the traditional purchasing procedures more efficient and cost effective (Wu, 2007 and Turban *et al,* 2006). Larsen *et al* (2008) noted the development and implementation of electronic commerce business models such as a procurement portal in organizations in a challenge that goods beyond mere technological functionality. Top management support organizational adaptation, and training of employees are examples of issues for the successful implementation of organization IT system (Kawalek *et al,* 2003).

It has been confirmed that e- commerce tools and IT solutions have an influence on procurement- related processes. Companies have reported: Cost reduction (Croom and Johnston 2003, Davila *et al*. 2003, Lin and Hsieh, Radovisky and Hegde 2004, subramaniam and Show 2002); reduction in purchasing cycle time or order time (Davila *et al.* 2003, Lin and Hsieh, Radovisky and Hegde 2004); reduction in number of suppliers (Davila *et al.* 2003); increase in the number of products supplied by main suppliers (Muffato and Payaro 2004); inventory savings (Subramaniam and Show 2002); reduction of purchasing prices (Davila *et al.* 2003).

In order to achieve such efficiencies, in industrial circles technology-enabled commerce has been commonplace through electronic data interchange (EDI). The public sector organizations use e- Procurement for contracts to achieve benefits for example increased

efficiency and cost savings, faster and cheaper in government procurement (Acher 2005) and improved transparency, to reduce corruption, in procurement services which in the long run enhances performance. e- Procurement in the public sector has seen rapid growth in recent years. Act 590 of Louisiana's 2008 Regular Legislative Session requires political sub-division to make provisions for the receipt of electronic bids. With the adoption of ICT organisations register improved performance.

ICT has been applied in the procurement function to enhance the efficiency and effectiveness of the function and streamline business processes. It allows businesses to focus more management time on serving customers and earning revenue through reduced lead times. Through the adoption of various ICT software, the organisation can easily keep track of the past trends and performance of various sectors. Contract administration focuses on the achievement of three major goals of quality products or services, timely delivery or completion of a given project, and within budget, by assessing contract risk, quality assurance and contract termination to avoid delays in performance, disputes and appeals, (Lysons and Farrington, 2006).

Furthermore Schapper, VeigaMalta & Gilbert (2006) posited that technology can be used to enhance transparency. Other studies (Shadrach and Ekeanyanwu 2003) also agreed on the assertion by Schapper, et al (2006). They indicated that electronic commerce (e-commence) can be used to enhance transparency in the procurement process through effective audit and monitoring of low value transactions. According to them, for high value and very complex procurement procedures, key features of transparency involves publicly available information on procurement policies; information dissemination on bidding programmes; standardized documentation, and bid lodgment; progressive evaluation of tender documents and declaration of tender results.

Growth in business- to- business e-commerce remains strong as information and communications technologies (ICTs) continue to transform organizations' interactions with their suppliers and customers (Mullaney, 2003; European Commission, 2005 a). For example, in 2004-2005 the proportion of Australian businesses placing orders via the Internet continued to increase (33%), growing by 2% from 2003-2004 (31%) (ABS, 2006). Supply-side activities such as electronic procurement (e- Procurement) have been identified as a key area where information systems (IS)- enabled innovations are likely to yield significant benefits for organizations (European Commission, 2005b 2006, Laub, 2001).

Hawking and Stein (2004) view e- procurement not only as a strategic player in the value chain but as a major driver in the extended supply chain. The use of e- equipment and systems improves quality, which in turn improves the level of output (Mukhopadhyay, 2007). This type of impact is mainly on the operational level and results in cost reduction, higher productivity and improved quality (Mukhopadhyay, 2008). Electronic commerce (e-commerce) tools provide the opportunity to enhance two elements of procurement process; communication and transaction aspects (Oslomebekor *et al.* 2002). Adoption profiles and reasons for adoption vary, as do the desired benefits (Williams and Morello 2004). For example, whilst there are similarities between public and private sector e-Procurement contexts in terms of deriving economic value and quality there are significant differences in terms of social welfare implications (Hardy and Williams, 2005). Jeyaraj *et al*. (2006) found that top management support to be one of the best predictors of organization adoption of Information System innovations.

Top management can stimulate change by communicating and reinforcing. Organization size has been identified by Jeyaraj *et al.* (2006) as one of the best prediction of organization adoption of Information System innovations. One way to estimate the value of a system is to quantify the improvements in the performance measures in some electronic terms. However,

measuring and quantifying the impact on the immediate measures will provide more precise estimate of the value of the system (Kauffman and Kriebel, 2008, Mukhopadhyay, 2008), but require more detailed data at process level. The objective of electronic business strategy in procurement area is to provide purchasing managers with better control over their companies' purchasing habits and relationships with suppliers (Croom and Johnston, 2003)

Relating this to procurement performance, e-procurement helps enhance performance through sourcing online. This helps reduce on lead times in supplier sourcing since one can get all the information they need from the internet. However ICT has a couple of disadvantages to do cost acquiring IT equipment, internet cost as well as maintenance cost. With the introduction and implementation of the Procurement Performance Measurement System by PPDA, staff in the PDU unit of DDA was not trained on its benefits and how to navigate it. This created a gap in measuring performance since the overall objective of implementing PPMS was to measure the performance of various procuring entities.

Although overall adoption rates of e-procurement technology are still a relative unknown (Pearcy *et al.*, 2008), most researchers agree that the full impact of e-procurement has not yet been realized and that the adoption and integration of EPTs into the business mainstream is occurring at a much slower pace than expected (Davila *et al.*, 2003). Indeed, studies have shown that while over 70 percent of American buyers use internet technologies at work (Caridi *et al.*, 2004), the percentage of business procurement conducted electronically is relatively low – ranging from 10 percent (Qualyle, 2005) to 20 percent (Kulp *et al.*, 2006). This disconnect is evident in a recent study by Gunasekaran and Ngai (2008).

Literature on ICT adoption shows that the public procurement systems that have adopted ICT Studies in other countries show that ICT is a precursor to quality performance of the procurement system. For instance, Kramer, Jenkins, and Katz (2007) report that the

Government of Chile is using ICTs to facilitate the procurement from small businesses using a new business model and this has positively effected on the functioning of the procurement system especially, since the integration of online services in the system have effective management systems that support the procurement function (Kramer, Jenkins, and Katz, 2007

2.8 Contract management and Procurement Performance

Contract Management also referred to as contract administration is the supervision of contracts made with customers , vendors, partners or employees (Hefetz and Warner, 2004). Contract Management includes negotiating the terms and conditions in contracts and ensuring compliance with the terms and conditions ,as well as documenting and agreeing any changes that may arise during its execution (Moe,1996). Common commercial contracts include employment letters, sales invoices, purchase orders, and utility contracts. Complex contracts are often necessary for construction projects, goods or services, property agreements and international trade. Once a formal contract document is drawn up, using the agreed terms and conditions, and signed by both parties. Simpler requirements may use a purchase order or where there are running framework contracts, contracting may consist of placing a call-off order under the existing contract. The awarded contract must then be managed, to ensure that both the buyer and supplier perform their contractual obligations. According to PPA Annual report (2009) Contract completion rate for the year is about 68%. This signified that contract management is a major challenge for most entities.

The importance of contract management to the success of the contract and to the relationship between customer and provider should not be underestimated . Eyaa and Nagitta (2011) examined the nature of non-compliance in Ugandan public procurement contracts. Clear administrative procedures ensure that all parties to the contract

understand who does what, when, and how. The contract documentation itself must continue to accurately reflect the arrangement and changes to it carefully controlled. Responsibility for authorizing different types of change will often rest with different people and documented internal procedures will need to reflect this. Contract management enables both parties to a contract to meet their obligations in order to deliver the objectives required from the contract. It also involves building a good working relationship between customer and provider. It continues throughout the life of a contract and involves managing proactively to anticipate future needs as well as reacting to situations that arise.

The central aim of contract management is to obtain the services as agreed in the contract and achieve value for money. Contract management may also involve aiming for continuous improvement in performance over the life of the contract. No matter what the scope of the contract, there will always be some tension between the different perspectives of customer and provider. Contract management eases tensions to build a relationship with the provider based on mutual understanding, trust, open communications and benefits to both customer and provider on a win –win relationship. Therefore contract management consists of a range of activities that are carried out together to keep the arrangement between customer and provider running smoothly and they can be broadly grouped into three areas namely, contract monitoring, service delivery management and relationship management.

According to Prier and Mc Cue (2009), developing monitoring systems that are transparent, accountable and independent allow for civil society participation and operate at all levels, from contracting decision and supplier selection, to contract implementation. Monitoring systems should also include an annual external audit to verify the procurement office's accounting records. Faisal *et al.,* (2006) define contract management as a series of

administrative procedures and office work, which in their majority are performed by the project manager. Thai (2004) as well as Lysons and Farrington, (2006), state that contract administration focuses on the achievement of three goals; quality cost and time. This idea is supported by Xiao, (2002), who asserts that contractor performance has long been defined in terms of cost, time and quality, and is critical to the success of any project, as it is the contractors who convert designs into practical reality. Improved contractor performance leads to increased client satisfaction and improvement in the reputation of contractors and hence their competitiveness in the market.

Contractor performance is one of the most important determinants of predictive performance i.e. contractors who complete projects successfully are more likely to achieve project targets in future. Delays are not uncommon and have significant cost and quality implications especially so in subcontracting leading to the primary cause of defects. Smith *et al.*, (2004) raised the concern that financial risk and reason for dispute and arbitration mainly arises from the shortage of necessary capital, resulting in the arrears in payment by clients to contractors or by the contractors or employees. Furthermore, the reason for dispute and arbitration and the risk arising from time, cost and quality slippage may be largely as a result of failing to execute sound contract and project administration. Acharya *et al*. (2006) argued that claims and disputes, which generally arise as a result of changes, errors or omissions, adversely affect the performance and quality of the finished product. Any errors in meeting quality in technical performance or time more often than not result in a loss to a contractor or the dissatisfaction of the client. Rahman (1997) also echoed, the selection of contractors as a significant aspect in achieving project success, where prequalification is necessary to make an initial assessment of the interested the party's suitability to undertake the works. On the other hand, Baquero (2005) 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.

Performance on the other hand can be defined as the results that an organization achieves in relation to its objectives and as the outcome of work because it provides the strongest linkage to the strategic goals of the organization and economic contributions. Performance should therefore be measured by the results that an organization produces (Rist, *et al*., 2005). It covers competence or capability levels as well as achievements. Effectiveness as a performance measure can be used to evaluate the quality and outcome of service delivery for a level of resources consumed (Wang, 2009).

Therefore, the appointment of competent contractors can increase the chance of success. Quality of service delivered is directly related to time and cost, and vice versa. A poorly managed project can result in extra cost and time extensions. A poor time and cost controlled project can affect the conformance to requirements i.e. quality. Quality management in public/government funded projects involves satisfying the public/government's' requirements in terms of time, cost and quality. It is therefore concluded that contract administration is very important in the performance of public/government funded projects in terms of time, quality and cost.

2.9 PPDA Legal framework

The PPDA Act, 2003 is currently the principle law governing Procurement and Disposal in both Local governments and Central government. The PPDA Act prevails over all regulations and guidelines relating to procurement at all levels of the public sector in Uganda. It has created a new procurement framework intended to achieve a number of objectives.

Government procurements are attached with strings of conditions to be adhered to by various entities carrying out the procurement function. In most cases such conditions are in line with

the governing law of a particular country. The PPDA Act spells out the method of procurement, limit of authority and type of tendering documents to be used as well as the procurement thresholds and approval limits. It is therefore important to adhere to the laid down procedures or the entity is penalized for non-compliance. Quite often while undertaking procurement for public/government funded projects; procuring entities are required to seek clearance from the internal approving authority before external authority which sometimes prolongs the procurement lead time.

2.10 Procurement Performance

Ramboll Management (2008) defined performance as achieving the set objectives and responsibilities from the perspective of the judging party. As a result, indicators have to be put in place to monitor activities conducted by procurement officers, the outputs produced by the activities, the intended outcomes (improved performance) and impact (more value for money). For example with the use of outcome mapping one is able to establish the effectiveness of a given procurement by looking at the overall outcome of a particular procurement. Procurement performance is the extent to which operational procurement outcomes demonstrate high levels of improved performance in lead time, cost, labor - productivity, and capacity utilization (Martinez -Martinez, 2008).

For one to achieve performance goals and increase the value of the procurement function, the two most fundamental dimensions of performance are efficiency and effectiveness. Efficiency measures how successfully the inputs have been transformed into outputs while effectiveness measures how successfully the system achieves its desired output (Kumar, Ozdamar & Ng, 2005). According to Van Weele (2000), effectiveness is defined as the extent to which, by choosing a certain course of action, a previously established goal or standard is being met while efficiency is defined as the relationship between planned and

actual sacrifices made in order to be able to realize a goal previously agreed upon. Efficiency focuses on the internal workings of the function, and is generally defined as the amount of resources used to produce a unit of output, which is normally time or cost based. Effectiveness, on the other hand, has been defined in terms of the degree to which a function meets its goals; the ability of the function to acquire needed resources; the internal health or internal processes of the function; or the degree to which the function meets the needs of its constituencies.

Although the need for performance measurement in procurement has long been recognized, for a variety of reasons, many organizations fail to measure it adequately (Brun *et al*., 2004). Easton *et al.* (2002) review the history of Procurement Performance measurement in the literature through the 1980s and early 1990s and conclude that a general weakness of "traditional" measures is that they recognize and reward mainly short-term gains, rather than long-term ones. Laudon and Laudon (2010) argued that measuring long-term impact is notoriously difficult. Another problem with traditional metrics is that they often work to improve the Procurement Performance at the expense of other departments' performance; however, the concept of improving only one unit's performance (a traditional way of measuring procurement performance) has been heavily criticized in the literature (Bourne *et al*., 2002) and is counter to the total quality management philosophy. Other criticisms of traditional measures of Procurement Performance include: being based too much on financial performance; one-dimensional or incomplete; contradictory to continuous improvement; inflexible; no strategic focus; and even invalid (Easton *et al*. (2002).

Therefore performance can be considered as the extent, to which the procurement personnel are able to realize their predetermined goals at the sacrifice of a minimum of the organization's resources (Van Weele, 2000). Some of the Procurement goals and performance measures established include department costs, productivity, price, quality of

products, services and works, supplier profile, inventory management, documentation, timely delivery, efficiency and effectiveness, value for money and attaining the best products at minimal price. Performance measures are established to support the achievement of goals and are provided with the intent to motivate, guide and improve an individual's decision making. These measures can be categorized into areas such as workload, quality, operations or price. Osei- Tutu, Mensah, and Ameyaw, (2011) argue that increasing the effectiveness, efficiency and transparency of procurement systems is an on-going concern of governments and the international development community. Performance of the procurement function is measured through its efficiency and effectiveness in meeting procurement aims. All countries have recognized that increasing the effectiveness of the use of public funds, including funds provided through official development assistance (ODA) requires the existence of an adequate national procurement system that meets international standards and that operates as intended.

This is very high when compared with a global average of 12-20 % (Froystad *et al;* 2010). As a result of the enormous amount of money involved in government procurement and the fact that such money comes from the public, there is need for accountability and transparency (Hui *et al;* 2011). In Uganda, the advent of the economic liberalization regime and with support from the World Bank and other donor agencies, a number of procurement reforms and initiatives have been progressively implemented overtime to improve service delivery in a timely manner. These include institution of an autonomous and independent regulatory body- the Public Procurement and Disposal of Public Assets (PPDA) and delegation of the procurement function from the previous Centralized Government Procurement Commission to individual Government Ministries, Departments and Agencies. At Policy level, effort has been done to incorporate tenets of accountability, compliance, value for money, capacity building & training as key drivers for improving procurement performance. However, at

Operational level little analysis has been carried out to assess the impact of staff skills & academic qualifications, ICT adoption and contract management on procurement performance. This research therefore explores from the case of Dairy Development Authority (Uganda) how these operational factors are crucial to building an efficient procurement system for improved performance.

Performance management has become a key element in modern public sector governance. As a result, many developing countries have introduced it as a means to measure organizational and individual efficiency in order to ensure that public sector organizations meet the needs of the public. For any organization to become more competitive Amaratunga and Baldry (2002) suggest that absolute performance is a key driver to improving quality of services while its absence or use of inappropriate procedures can lead to non-compliance with purchasing function. However, the implementation of performance management systems in many of these countries has been affected by a number of institutional and capacity constraints such as culture, institutional fragmentation, public apathy, and leadership support, thus making it difficult for many of them to realize the `benefits' of such a system

In most developed countries, public procurement takes place within a framework of international obligations, such as the World Trade Organization's Agreement on Government Procurement or the Procurement Directives made under regional agreements such as the European Union or the North America Free Trade Agreement. Public procurement in most developing countries does not have to meet these international requirements. Consequently, the pressure to reform may not have been as strong and some developing countries retained a procurement system that differed little from that which was in place during colonial times. However, in recent years, the drive for reform has increased, partly in consequence of requirements set by the World Bank and other donor organisations as conditions for providing development aid but principally because the inefficiencies of the unreformed

systems have become self-evident. Most donors consider that a well-functioning procurement system is an essential requirement if their funds are to be used effectively to promote development. Where such a system is not provided by the host country, donors may insist on using their own procedures. There has been a trend in recent years for using national systems where these are suitable, through multi-donor budget support programmes (Abeillé 2003). As most developing countries prefer the flexibility that comes with receiving development aid through budget support, they have an incentive to reform their public procurement and financial management systems.

Public procurement is the process whereby public sector organisations acquire goods, services and works from third parties. It includes much that supports the work of government and ranges from routine items (e.g. stationery, temporary office staff, furniture or printed forms), to complex spend areas (e.g. construction, Private Finance Initiative projects, aircraft carriers or support to major change initiatives). It also includes a growing spend where the private and third sectors provide key services directly to citizens in areas such as welfare-to-work, further education, social care and health. Such services may also be provided by the public sector directly, and in some cases even this public provision can be handled through procurement mechanisms. A public body may bid for government work against private sector firms through a formal competitive process (Office of Government Commerce, United Kingdom, 2012).

Although the need for performance measurement in procurement has long been recognized, for a variety of reasons, many organizations fail to measure it adequately (Cammish and Keough, 1991; Brun et al., 2004). Easton *et al.* (2002) review the history of PP measurement in the literature through the 1980s and early 1990s and conclude that a general weakness of "traditional" measures is that they recognize and reward mainly short-term gains, rather than

long-term ones. Laudon and Laudon (2010) argued that measuring long-term impact is notoriously difficult

2.5 Conclusion

The performance of public/government entities depends on procurement management as depicted by the various writers above. Procurement entails a lot of processes according to Fearne *et al.,* (2006), these processes which contribute to the performance of public/government funded projects. Procurement reform is a protracted process and there are many obstacles along the way and therefore needs to be effectively managed. This chapter has presented literature on selected factors that affect procurement performance. These factors are procurement planning, Information and Communication Technology adoption and contract management. The overriding objective of a state's public procurement system is to deliver efficiency and "value for money" in the use of public funds. The literature review in the above sections shows that this objective can be achieved effectively, if factors such as contract management are upheld throughout the procurement system.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents a detailed plan and methods that were used to systematically obtain data for the research. Therefore it covered; the research design, the study population, the sample size and selection of sample, the sampling techniques and procedures, the data collection methods, the procedures of data collection, the data analysis, and the measurement of variables.

3.2 Research design

A case study design was adopted for this study, and it is situated between concrete data taking techniques and methodological paradigms (Lamnek, 2005). Case study designs have a number of advantages ranging from their applicability to real, contemporary, human situations and its public accessibility through written reports. This type of study design relates directly to the common readers' everyday experience and facilitates understanding of complex real-life situations

The study adopted both quantitative and qualitative approaches. Quantitative approach was used to ensure high levels of reliability of the data to be gathered , measurement of precision and statistical power. The use of qualitative approach helped in deriving meaning out of the respondents' description and explanations of the issues raised in the interview. More still the qualitative approach was used to obtain in depth information about how respondents perceive the relationship between Procurement management and performance of public/government funded organizations. All this

information enabled the researcher to gain understanding and find solutions for the research questions.

3.3 Study population

The study targeted two categories of respondents i.e. DDA employees/staff and its clients. DDA staff included departmental heads, senior management and other staff members from various units/departments. Among the DDA clients, the study focused on DDA beneficiaries and pre-qualified suppliers and services providers. The population breakdowns were based on DDA's Human resources records and the approved prequalified list for the year 2013/2014 of the key dairy processors in Uganda. Hence a study population of 60 respondents.

3.4 The sample size and sampling technique

Table 3-1: Determining Sample Size from a Given Population

Level of structure	Target	Sample Size
Staff at Top management		
Heads of departments	4	4
Staff at senior management	5	5
Staff in the PPDU	5	5
Staff in the departments	24	19
Clients		
Key DDA beneficiaries & Suppliers and	22	19
Totals	**60**	**52**

Source: primary data (2016)

The study sample size was determined using Krejcie & Morgan tables. According Sarantakos (2005) an easy to use sample size table is offered to facilitate sample size determination. The samples used in the study were selected using the simple random sampling and purposive sampling. The sample size was 52 of all the respondents.

3.5 Sampling Techniques and Procedures

According to Sekaran (2003), sampling is the process of choosing the research units of the target population, which are to be included in the study.

A probability sampling method is where all elements have an equal chance of being selected. (Herman *etal*.. 2003). Probability sampling provides the means by which the margin of sampling error can be calculated and the level of confidence in survey estimates reported.

Non probability sampling is any sampling method where some elements of the population have no chance of selection (these are sometimes referred to as 'out of coverage'/'under covered'), or where the probability of selection can't be accurately determined. It involves the selection of elements based on assumptions regarding the population of interest, which forms the criteria for selection.

3.5.1 Purposive sampling

Purposive sampling technique under non probability sampling was used to select staff at senior management with DDA staff. The technique was used because; the focus of the researcher is to get in-depth information and not making generalizations. Those to be selected are expected to provide the required information in-depth. Hence, the researcher selected participants based on who he thinks would be appropriate for the study.

3.5.2 Simple Random Sampling

In a simple random sample ('SRS') of a given size, all such subsets of the frame are given an equal probability. Each element of the frame thus has an equal probability of selection: the frame is not subdivided or partitioned. Furthermore, any given pair of elements has the same chance of selection as any other such pair (and similarly for triples, and so on). This minimizes bias and simplifies analysis of results. In particular, the variance between

individual results within the sample is a good indicator of variance in the overall population, which makes it relatively easy to estimate the accuracy of results. This method was used to sample key beneficiaries.

3.6 Methods of Data Collection

3.6.1 Questionnaire Survey

The questionnaire design carefully followed the research objectives guiding the study. Neuman (2003) defined a questionnaire as a survey in which the researcher conceptualizes and operationalizes the variables and questions. Questionnaires were very appropriate for collecting information regarding surveys that deal with the perception of the variables. The questionnaires were self-administered to the respondents who were able to read and answer questions without being influenced by the interviewer. A semi- structured questionnaire was the main instrument of data collection for the study. A Li-kert type of questionnaire was designed and administered on Staff at Lower and Middle, senior management with key beneficiaries, as respondents to explore their responses regarding the different statements describing the key variables of finance and the performance of organization with the case study of DDA. The main advantage of self-administered questionnaires is that the researcher or member of the research team was able take control and ensure that all the completed questionnaires are completed within a short period of time (Sekaran, 2003).

3.6.2 Interviewing

This is a method of data collection where the investigator is given a chance to gather data through direct verbal interaction with participants (Amin, 2005). The researcher used the interview to collect data from selected key informants among the Staff at senior management with finance department and senior and middle management staff DDA in his researcher

endeavor. The researcher chose the above categories of respondents because they are in key and central among all the respondents. An interview guide consisting of structured questions was designed and administered to the above relevant and key stakeholders. Information solicited by this instrument helped the researcher to enhance response from the self-administered questionnaires and make it possible for the researcher to cross examine some key issues in the research. Interviewing is a good method for producing data based on information priorities, opinions and ideas based on informants thus has an opportunity to expand their ideas, explore their views and identify what they regard as their crucial factors (Babbie, 1990).

3.7 Data Collection Instruments

3.7.1 Questionnaire

Adopted from Mugenda & Mugenda (2003) collection of data involved use of a researcher administered questionnaire which contained both structured closed-ended questions and unstructured open-ended questions.

3.7.2 Interview schedule

The researcher employed an Interview Schedule which contained open-ended questions that were asked during the face-to-face interviews with key informants. During the interviews, the researcher asked standard questions and nothing more based on Leedy & Ormrod (2001) adopted from (World bank. nd).

3.8 Validity and Reliability of Research Instruments

3.8.1 Validity

According to Mutai (2000), an instrument can be validated by proving that its items or content and construct validity was established to determine if the items are a representative

sample of the skills and traits that comprise the area to be measured. This ensures that the instruments used will yield relevant and correct data. The instruments used are expert judgment and pre-test using part of the study sample respondents to ensure construct, content and face validity. In order to test and improve the validity of the questionnaire, the researcher availed the first draft of the instruments to experienced researchers and fellow students for constructive criticism and then later on to the supervisor.

The manner of construction of the questionnaires was also checked to ensure that the questions were not misinterpreted and only relevant information is obtained. According to Cohen et al, (2007), Validity is ensured by; choosing an appropriate scale, ensuring that there are adequate resources for the required research to be undertaken, selecting an appropriate methodology for ensuring the research questions, avoiding having too long or too short an interval between pre-test and post-test, ensuring standardized procedures for gathering data or for information administering tests, and tailoring the instruments to the concentration span of the respondent. These were requested to look at the items and checked on language clarity , relevancy and comprehensiveness of content plus the length of the instruments. The researcher thereafter made the necessary adjustments in respect to the comments raised and with the supervisor's advice. After that the researcher went ahead to calculate a content validity index (CVI) using the formula below:

Where;

R is Relevant. N is Neutral, and IR is irrelevant. The closer the value is to 1, the more

valid is the instrument (Amin, 2005).

Score from expert 1: R=70%, N=5%, IR=10% result= 82%

Score from expert 2: R=70%, N=5%, IR=15% result= 79%

From the two experts the average score was 80.5 % which made the questionnaire content valid.

3.8.2 Reliability

Mugenda and Mugenda (2003) defined reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trials. The reliability of an instrument refers to its ability to produce consistent and stable measurements. The researcher administered the questionnaire to only targeted groups and used selective data which is only relevant to the research objectives to minimize the errors and increase its reliability. A pre-test was done where the research instrument to be used was tested to ten respondents in order to find out its accuracy and relevancy to the research topic.

According to Mugenda and Mugenda (2003: 96), in a research study, the reliability coefficient can be computed to indicate how reliable data are. A coefficient of 0.80 or more implies that there is a high degree of data reliability. Sometimes, a researcher may get away with using less reliable data if the sample size is very big or the variables under study differ greatly among the subjects. But where the sample size and variations among the subjects are small, a highly reliable data set is required to reveal the magnitude of these variations.

Bagozzi (1994) explains that reliability can be seen from two sides: reliability (the extent of accuracy) and unreliability (the extent of inaccuracy). The most common reliability coefficient is the Cronbach's alpha which estimates internal consistency by determining how all items on a test relate to all other items and to the total test - internal coherence of data. The reliability is expressed as a coefficient between 0 and 1. The higher the coefficient, the more reliable is the test.

Cronbach's alpha

Where:

K- the testlets

-the average variance of each component (item),

-the average of all covariances between the components across the current sample of persons (that is, without including the variances of each component).

The reliability of the questionnaire was tested using the test-re-test estimates of reliability by correlating data collected with those from the same questionnaire collected under as near equivalent conditions as possible in order to ensure dependability and consistency. The test of internal consistency was done by correlating the responses to each question in the questionnaire with those to other questions in the questionnaire. All the 3 constructs representing the independent variables attracted a Cronbach's alpha statistics of more than 0.8 individual item loadings which represent squared multiple correlations of 0.80 or greater imply that the indicator shares more variance that the data collection is reliable (Sekaran, 2003). The reliability statistics are presented in Table

Table 3-1: Cronbach's Alpha Reliability test

Intellectual Capital (IC).	**Cronbach's**	**No of Items**	**Comment**
Planning	0.8370	10	Accepted
ICT	0.8357	9	Accepted
Contract	0.8759	9	Accepted
Procurement performance	0.8350	9	Accepted

Source: Study results (2016)

3.9 Data Management and Analysis

3.9.1 Quantitative Data Analysis

After obtaining quantitative data from close-ended questions, it was edited to remove any errors. Data was cleaned and coded according to themes derived from the research objectives. Quantitative data was edited. The process of cleaning the data was done to remove any errors and help improve the reliability of the data. Statistical packages of data analysis such as Excel and SPSS were employed to tabulate the raw data and provide comparisons that eased the analysis.

The collected data was analyzed using quantitative analysis which majorly involve six major activities namely, data preparation, counting, grouping, and relating, predicting and statistical testing. Data preparation involved all forms of manipulations that are necessary for preparing data for further processing such as coding, categorizing answers to open-ended questions, editing and checking as well as preparation of tables; counting including the mechanical task of registering the occurrence and frequency of the occurrence of certain answers or research items; grouping and presentation involved ordering of similar items into groups and then distribution of data presented in the form of tables and graphs; relating involved the cross-tabulation and statistical tests to explain the occurrence and strength of relationships; predicting is a process of extrapolating trends identified in the study into the future and this statistical method which helped the researcher complete this task and finally statistical testing will be done.

3.9.2 Qualitative Data Analysis

To analyze qualitative data, the researchers identified and transcribed the qualitative findings into themes. The themes were arranged into different categories from which lessons were to be deduced for reporting. Such reporting was done manually written in paragraphs. The

researcher used content comparisons, logical analysis, and expert judgment. Subjective analysis was used to enrich the information given with vivid reporting this bridged the information gap on issues that the researcher may not be able to quantify such as the perceptions of the interviewees.

3.10 Procedure for Data Collection

A letter of introduction was obtained from Uganda Martyrs University introducing the researcher to the field. This followed appointment of research assistant who together with the researcher who went to the field to pre-test the instruments and later collect the data.

3.11 Measurement of Variables

Quantitative measures of risk planning, monitoring and evaluation was measured using ordinal scale. Particularly the Likert Scale of five (5 Strongly Agree. 4 Agree. 3 Undecided.2= strongly disagree. 1=Disagree. Amin (2005) observed that the scale is better than other types of attitude scales like semantic difference scale and rating scale. Questions that require YES or NO were asked as well as open-ended questions.

3.1.2 Limitation of the study

The study had a couple of limitations. This study was primarily limited by its small sample size. The sample size could have been increased by including regional offices. An earlier start in data collection would have increased the time needed to survey more participants. More contact between the researcher and the study sample may have increased participation the time constraint was also a major factor when it came to final analysis and research. Some more limitations are detailed below,

The study relied on secondary data as well for information, the presence of faulty data definitely posed problem to the study though this was solved by critical journal examination.

Some respondents viewed the study as more of audit than an academic study and thought findings of the study would be going to the higher authorities who would know their short falls. This influenced them in the way and manner they responded to some of the questions. This was overcome by writing letters of intent to carry out the research and clarifying to the respondents that the overall objective of the research was purely academic and not an audit.

3.13 Conclusion

The above chapter presented the research study design, area of study, study population, sample size and selection, sampling techniques, data collection methods and instruments, validity and reliability of instruments, data management and analysis and ethical considerations. A Cross-sectional study design was adopted using both quantitative and qualitative data collection approaches. Our area of study was DDA where a sample size was 52 participants was drawn constituting; 30 DDA employees, 22 DDA beneficiaries & prequalified suppliers and service providers. Purposive sampling techniques were to determine the data collection samples units The study used self-administered questionnaires and interview guides to collect data which late was analysed using SPSS as well as thematic and content analysis.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter presents data collected using the questionnaire, documentary analysis/literature review and observation of the case study described in Chapter 3 above and the limitations of the study. The corresponding interpretations also follow each presentation. The results of the study are presented according to the objectives and research questions. The findings in this chapter were also arrived at by analyzing and interpreting the available data using SPSS and Microsoft Excel software. All the responses are presented in terms of frequencies and percentages which are displayed in tables, graphs and charts. The hypothesis and each question were treated separately. The statistical data from the quantitative part of the questionnaire was then supported by the qualitative data of the study from the questionnaire. The qualitative data was analysed based on 1- Strongly disagree to 5-Strongly agree scale rate.

4.1 Response Rate

The total number of respondents who constitute the sample used in this dissertation are summarised in Table 4.1 below.

Table 4-1: Showing the Response Rate

Nature of Response	**Frequency**	**Percentage**
DDA staff		
Response	30	100%
Non-response	3	13%
Total	**33**	**100**
Key stakeholders and beneficiaries		
Response	11	80%
Non-response	9	20%

Total	**19**	**100**

Source: ***Primary Data*** **(2016)**

A total of sixty (60) questionnaires were distributed to DDA staff and beneficiaries and fifty two (52) were returned. The response rate for the distributed questionnaires was therefore ninety percent (90%) as shown in the Table 4.1 above. Darren (2002) asserts that for a study to score above 80%, it shows that the study was perfectly done meaning that all questions were perfectly understood by all the respondents from the study. This response could be attributed to the fact the topic at hand has significant influence in their work operations and it drives understanding in all aspects of the company as communication is key in all the company deliverables from the Chief executive to the lowest company cadre.

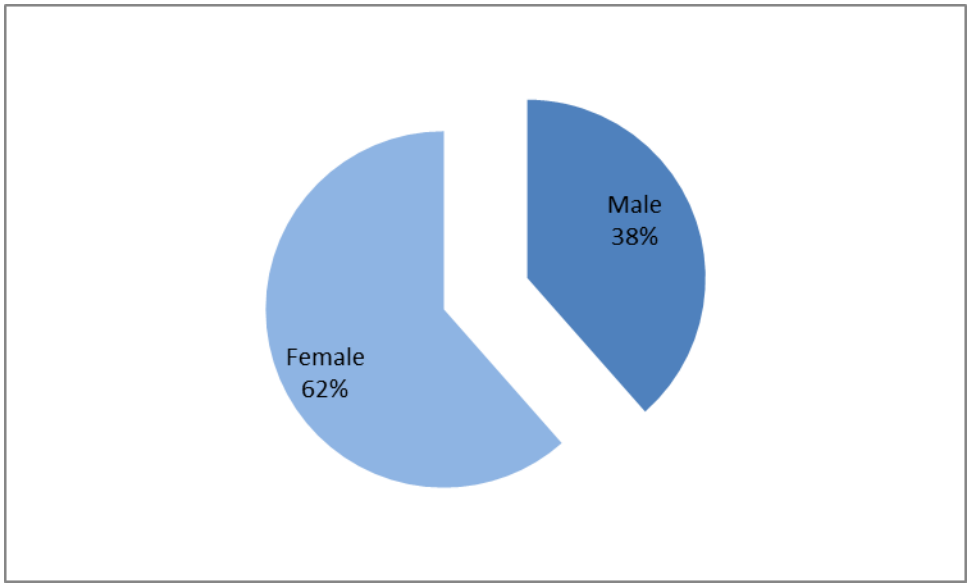
4.2 Descriptive characteristics of the sample

The background information of the respondents was considered necessary because the ability of the respondents to give satisfactory information on the study variables may be affected by their background. This information was about the respondents' duration in current employment; duty station; level of management; participation in the procurement process and the nature of items procured. This was presented in frequency distribution tables to indicate the variations of the respondents basing on the: Gender, Level of Education, Age , Employment status, Period of Service, Category of the respondent.

4.2.1 Gender of respondents

This section examines the gender of respondents which was categorized into sections i.e male and female. The attribute on gender was analysed using descriptive statistics as presented below

Figure 4-1: Gender of respondents

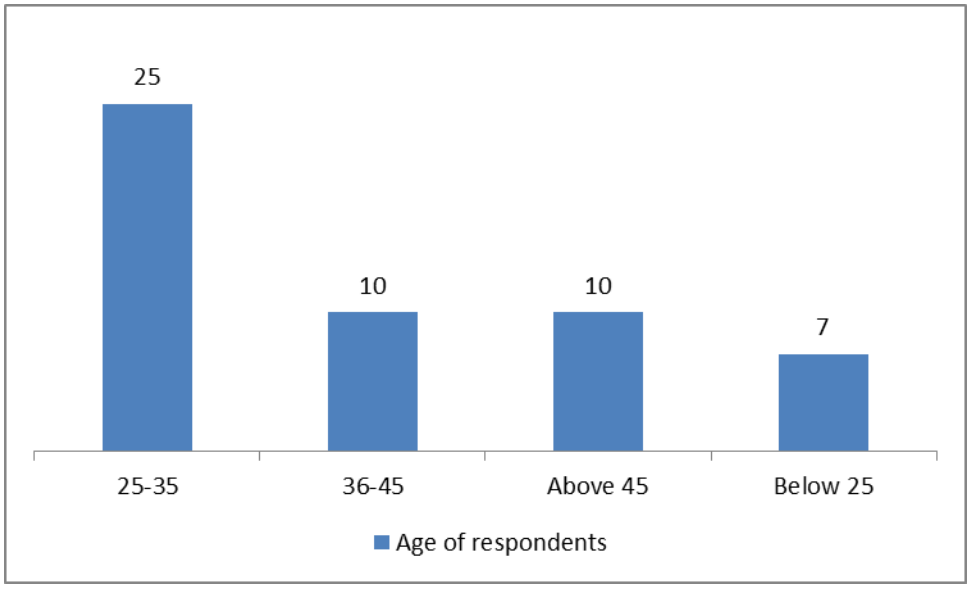


Majority of the respondents in the organization 32 (61.5%) were female , while 20 (38.5%) were male, as seen in table above .This indicates that the female dominate the workforce at DDA, and that the response rate was not biased in terms of gender. According to the Gender Equality Duty, (2012) Guidance for Great Britain, incorporating gender equality into procurement will enable the public sector to deliver better quality public services. The gender equality duty will mean that public bodies will have to ensure that the works, goods or services they buy are responsive to and genuinely meet the needs of both men and women – thereby increasing the quality of the service they are providing.

4.2.2 Age of respondents

Age of the respondents was considered in this study to influence the respondents' perception of factors affecting procurement performance. In establishing the age bracket of the respondents, the years were categorized in the questionnaire and these included the following: below 25 years, 25-35 years , 36-45 years, and above 40 years. The figure 3 summarizes the findings

Figure 4-2: Age of respondents

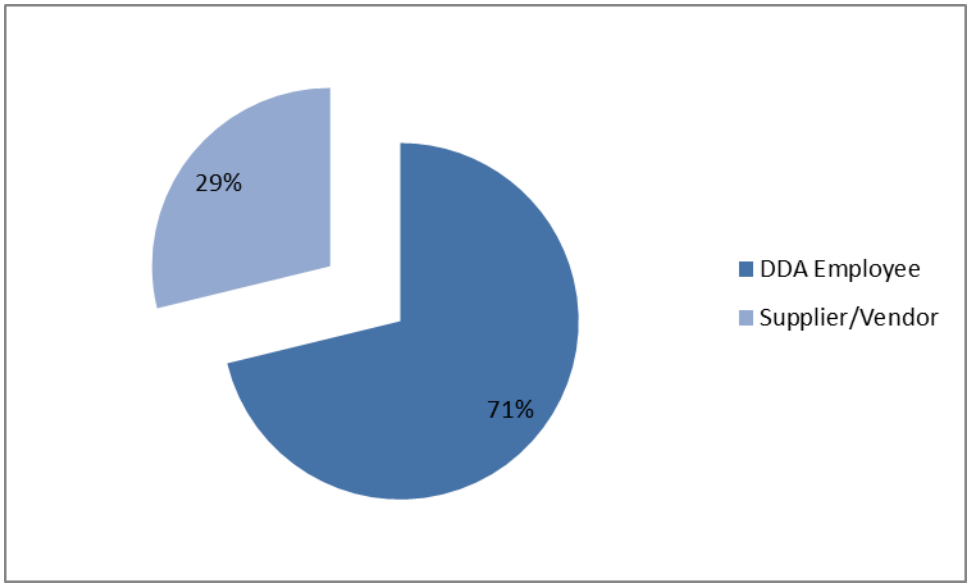


From Figure 3, it can be seen that most respondents were in the age bracket of 25-35 years with a 48.1% representation and this could be attributed to the fact that the company does a lot of field work which requires more energetic workforce giving chance to fresh graduates to develop career wise, those below 25years were 13.5% most of which were on contract and one intern ,those between 36 and 45 years were 19.2% and this could be attributed to the company policy of equal employment opportunity that doesn't segregate people by age or sex, those above 45years were 19.2%. These findings reveal that DDA employees are in the middle age class which is very dynamic and hard working. This also implies that more energetic staff (the youth) are the most employed.

4.2.3 Category of respondents

The category of respondents was measured against parameters that included: DDA Employee and suppliers/ vendors. Respondents were required to select their choice depicting their status and the table below summarizes the findings.

Figure 4-3: Category of respondents

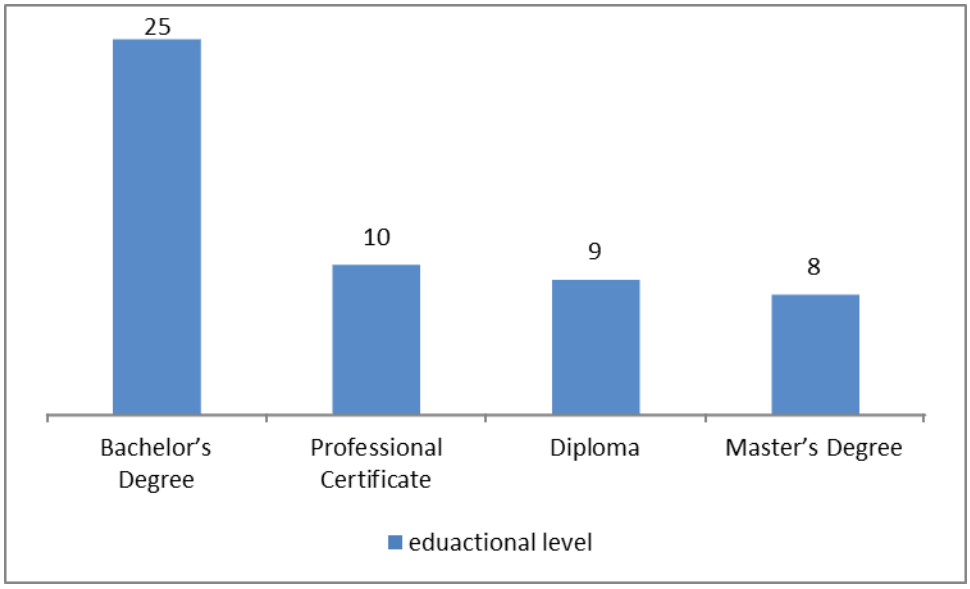


From the figure above, it is shown that 71.2% of the respondents were DDA's staff most especially people that interact with the procurement process on a day to day basis whose decisions and actions will in one way or the other affect procurement performance. The other 28.8% catered for the different vendors and suppliers of different goods and services that help DDA run its activities efficiently.

4.2.4 Education level of respondents

Level of education, in this case was in reference to the academic level of education attained. The level of education of the respondents was measured against parameters which included; Master's degree, Bachelor's degree, Diploma and Professional qualification. The responses to the level of Education attained were as provided in figure 5

Figure 4-4: Education level of respondents

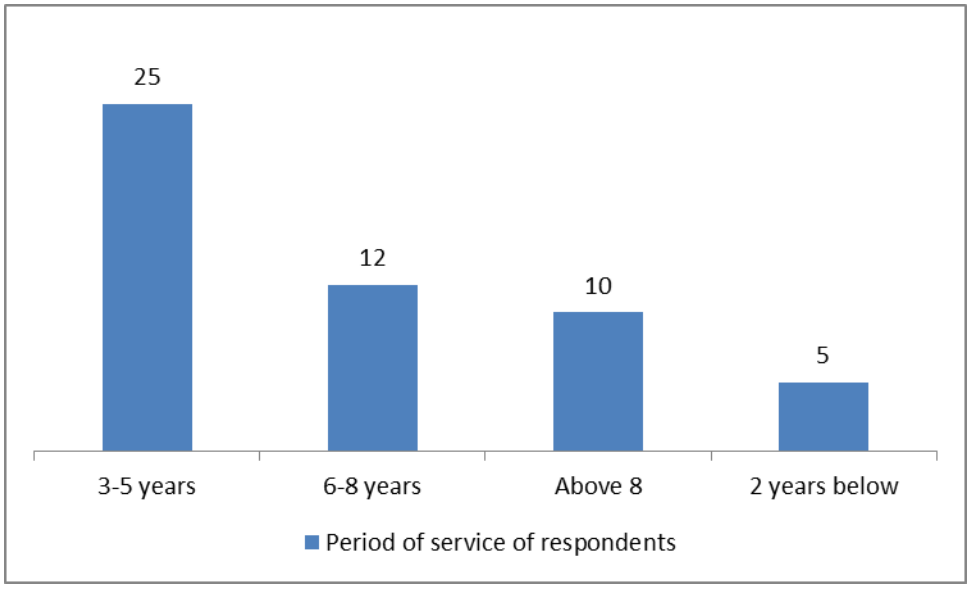


In the figure 5 above , the majority of the respondents in the organization 25(48.1%) have a acquired a bachelor's degree, while 8 (15.4%) have a master's degree, then 9 (17.3%) possessed Diploma and 10 (19.2%) had professional certificates. This implied that most of the respondents working in the organization had necessary qualifications to perform their tasks.

4.2.5 Period of service the respondents

The Period of Service of the respondents was measured against parameters that included: Below 2 years, Between 3-5 years, Between 6-8 years, and above 8years of service. Respondents were required to select their choice depicting their status and the table below summarizes the findings.

Figure 4-5: Period of service of the respondents



Majority of the respondents in the organization (48.1%) had been employed in the organization between 3 and 5 years, 9.6% had been employed for less than 2 years, 23.1% had been employed between 6 and 8years and 19.2% had been employed for more than 8 years. This indicates that majority of the staff have experience and knowledge of the organization of 3 to 5 years as seen in the table above . This therefore implied that the organization has highly experienced and stable staff who could be relied on when investigating the contribution of procurement management and organization performance.

4.3 Procurement Planning

The first objective of the study was to examine how procurement planning affects procurement performance in public sector organisations**.** In order to achieve this objective, a five point likert scale with numerical values ranging from 1-5 was used. Therefore the average mean was 3. All responses with a mean value above the average mean of 3 accounted for agreement whereas all responses with a mean value below the average mean accounted for disagreement. The findings for descriptive statistics are shown below;

According to James (2004), procurement planning endeavors to answer the questions of what do you want to procure; when to procure it; where to procure them from; when the resources be available; the methods of procurement to be use; how timely procurement or failure will affect the user of the item(s); the procuring and disposing entity; efficient in the procurement process; and the people to be involved in the procurement.

Table 4-2: Descriptive statistics on procurement planning

Procurement planning attributes	N	Min	Max	Mean
Procurement staff have procurement planning skills	52	1	5	4.33
Procurement Plan is frequently reviewed and updated	52	1	5	3.98
Procurement plans are always forwarded to PDU	52	1	5	4.31
Procurement Staff circulate approved procurement plans to users	52	1	5	3.48
Procurement requirements are always prioritized	52	1	5	3.75
Approval is obtained before the procurement plan is put to use	52	1	5	4.42
staff have the ability to determine the total time of procurement process	52	1	5	3.67
Procurement plans are realistic and achievable	52	1	5	3.75
The methods used for procurement are easily determined	52	1	5	4.21
Key stakeholders are involved and consulted before procurement plans are approved and drafted	52	1	5	4.19

Source: Primary Data (2016)

Procurement staff have procurement planning skills

Respondents were required to state whether procurement staff have procurement planning skills. From the findings we noted that a mean of 4.33 which implied that majority of the respondents agreed to the statement. This is in support of Russell (2004),"If the workforce is not adequately educated in procurement matters, serious consequences including; breaches of codes of conduct may occur". This was further supported in the interviews as one of the managers said:

"*The procurement unit has well experienced, knowledgeable and professional staff which assists us to manage and update information in the procurement plan and disseminate information to all concerned staff"*

Procurement plans are frequently reviewed and updated

The study wanted to know whether the Procurement Plan is frequently reviewed and updated. The findings indicated a mean of 3.98 which implied that majority of the respondents agreed to the statement. In an interview with some respondents that are direct beneficiaries of the procurements undertaken in the procurement unit pointed out that once they submit departmental, procurement plans, they often consulted in case of review or update of the procurement plan. *He further pointed out that procurement staff guide them on what is required during drafting the procurement plans.*

Procurement plans are always forwarded to PDU

Respondents were required to state whether Procurement plans are always forwarded to PDU. From the findings we noted that a mean of 4.31 which implied that majority of the respondents agreed to the statement. This implied according to the researcher's point of view that staff are actively engaged in the process of procurement planning and they always adhere to the set out guidelines in terms of forwarding the procurement plans to the responsible personnel within the PDU.

Procurement staff circulate approved procurement plans to users

The sought to find out whether Procurement staff circulate approved procurement plans to users. From the findings we noted that a mean of 3.48 which implied that majority of the respondents agreed to the statement. It was also noted from the interview guides that DDA lacked a standard procurement plan template to which led to late submission of

procurement plan to the user departments. These findings agree with Burt et al (2004 that, procedural procurement is vital due to considerable amounts of money spent annually in the public sector.

Procurement requirements are always prioritized

The research wanted to establish whether Procurement requirements are always prioritized. It was noted from the findings the researcher noted that a mean of 3.75 which implied that majority of the respondents agreed to the statement. According to Meredith and Mantel (2012), the key things to be planned, monitored and controlled are time (schedule), cost (budget) and scope (performance), therefore procurement requirement should always be prioritized by management in all organization.

Approvals are obtained before the procurement plan is put to use

In order to establish whether approval is obtained before the procurement plan is put to use. From the findings, it was noted that a mean of 4.42 which implied that majority of the respondents agreed to the statement. This was further supported in the interviews as one of the respondents said:

> *"The procurement plan before being to use must be approved by the Accounting Officer to ensure that there is availability of funds and that all planned procurements are relevant to the attainment of organisational goals."*

Staff have the ability to determine the total time of procurement process.

Respondents were required to state whether staff have the ability to determine the total time of procurement process. It was noted that that a mean of 3.67 was obtained which implied that majority of the respondents agreed to the statement. This was further supported in the interviews as one of the respondents said:

"Through the shared PPDA procurement guidelines on procurement timelines and thresholds, staff can ably estimate the total time a procurement process is likely to take, other factors remaining constant."

Procurement plans are realistic and achievable.

Procurement plans are realistic and achievable. From the findings, it was noted that a mean of 3.75 which implied that majority of the respondents agreed to the statement. This implied that most of the submitted procurement plans are within the organisation's budget and overall plan for the financial year. It also implies that procurement staff are given realistic timeframes within which procurement projects are to be executed hence procurement plans being realistic and achievable.

The methods used for procurement are easily determined.

The methods used for procurement are easily determined. From the findings, the researcher noted that a mean of 4.21 which implied that majority of the respondents agreed to the statement. This concurs with Eduardo (2004), who noted that "effective procurement requires organized teamwork: authorities, responsibilities, schedule, and resources". Find the right skills & organize the work, Develop a sound strategy, Manage timetable effectively, Follow sound bid evaluation method and develop a smart, fair contract. Wymer(2005) also noted in every significant procurement function, there should be procedures in place to ensure compliance with all relevant guidelines.

Key stakeholders are involved and consulted

Key stakeholders are involved and consulted before procurement plans are approved and drafted. From the findings, the research noted that a mean of 4.19 which implied that majority

of the respondents agreed to the statement. According to the OGC, 2012, many failed procurements can be traced back to a lack of clarity on specifications or desired outcomes and involvement of the key stakeholders. Stakeholders should always be involved at the point of clarity on the required outputs and outcomes. While procurement is very much a customer focused service and advisory function, the value of a strategic approach to procurement and the early involvement of procurement professionals in the business planning cycle, has led to high performing organizations from both the public and private sectors.

4.4 Adoption of ICT

The second objective of the study was to examine how adoption of ICT affects procurement performance in public sector organisations**.** In order to achieve this objective, a five point likert scale with numerical values ranging from 1-5 was used. Therefore the average mean was 3. All responses with a mean value above the average mean of 3 accounted for agreement whereas all responses with a mean value below the average mean accounted for disagreement. The findings for descriptive statistics are shown below;

Table 4-3: Descriptive statistics on ICT

ICT attributes	N	Min	Max	Mean
Government officials and elected leaders have increasingly come to realize that public agencies must utilize ICT in order to enhance the	52	1	5	4.31
Has your organisation applied ICT Technology in your procurement	52	1	5	2.77
Operational challenges are reduced with the adoption of ICT at DDA	52	1	5	4.37
Public authorities are implementing scalable communication infrastructures to promote economic development implementation of	52	1	5	3.08
The procurement department is lagging severely in ICT adoptions	52	2	5	4.35
ICT has been used in the Integration of design, delivery, and	52	1	5	2.73
DDA uses ICT in enhancing procurement performance	52	1	5	2.81
The set ICT standards and system meet customer requirements, enable performance transformation and innovation.	52	1	5	2.88

Does adoption of ICT in DDA play a major role in enhancing procurement performance	52	1	5	3.63

Source: Primary Data (2016)

Government officials have realized that public agencies must utilize ICT

Respondents were asked, if government officials and elected leaders had increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector. From the findings, the researcher noted that a mean of 4.31 which implied that majority of the respondents agreed to the statement. This implied that scalable communication infrastructures are well used and accepted amongst government ministries, departments and agencies to promote economic development.

It also implied that there has been an overall appreciation of the use of ICT in all government / public agencies. The introduction of the PPMS system by PPDA, greatly helped monitor the procurement performance of various government entities. Also the introduction of the Integrated Financial Management System in the Ministry of Finance, Planning and Economic Development, helped curb on mismanagement and enhanced efficiency in both the procurement and finance areas as it allowed room to monitor where the problem is as well as accountability. The findings were in line with the Working Document for Field Testing May 2009; which noted that, "IT knowledge is key in the performance of any programme component to avoid below expectations; actions to prevent and/or to correct the problems should be initiated".

Application of ICT in the procurement process

Respondents were asked, if their organisation applied ICT tools in the procurement process. From the findings, the researcher noted that a mean of 2.77 which implied that majority of the

respondents disagreed to the statement. This implies that DDA has not efficiently embraced the use of ICT as way of streamlining processes in the procurement function. However following the interviews conducted in regard to this attribute, one of the respondents from the organisation commented that "however much the adoption of ICT has been widely embraced by most public entities but DDA still has challenges in the use and navigation of the various systems like the PPMS system introduced by PPDA as most of the staff were never trained on how best to navigate this system, leading to staff using the manual system". According to Kogilah et al (2008), for countries to compete in the knowledge economy, there need for strong ICT-literate skills that can innovate and adapt quickly to change (Kogilah *et al*, 2008).

Operational challenges reduced with the adoption of ICT

Respondents were asked, if operational challenges are reduced with the adoption of ICT at DDA. From the findings, the researcher noted that a mean of 4.37 which implied that majority of the respondents agreed to the statement. The findings concur with Kirungu(2011) in Kenya, manual systems are a source of major inefficiencies in regulation and operations of the function. ICT needs to be adopted to ensure proper functioning of the procurement system. This does not only involve computerization of the system but scaling communication technology. E-procurement system is a product of the new world order where everybody is going digital. This allows customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Lee and Whang, 2001) which in the long run enhances procurement performance.

Implementation of scalable communication infrastructures to promote E-Procurement

Respondents were asked, if public authorities are implementing scalable communication infrastructures to promote economic development implementation of E-Procurement. From the findings, the researcher noted that a mean of 3.08 which implied that majority of the respondents agreed to the statement. This implied that ICT is well used and accepted amongst

government ministries, departments and agencies. Ellram, (1994); Carter and Narasimhan, (1996); Weele and Rozemeijer noted that; during the past few years the role of ICT in purchasing has begun to play an ever more important role in the strategy of the firm. Thus the results from the study are in line with these views. Similar, (Abouzeedan and Busler, 2002) urge public authorities to implement scalable communication infrastructures to promote economic development, attract new businesses and residents, and above all, provide excellent service to constituents.

Procurement department was lagging severely in ICT adoptions

The respondents were asked, if procurement department was lagging severely in ICT adoptions. From the findings, the researcher noted that a mean of 4.35 which implied that majority of the respondents agreed to the statement. This provided an understanding that DDA has to work on this aspect to enhance ICT adoptions. This concurs with Pearcy *et al.(*2008) that , although overall adoption rates of e-procurement technology (EPT) are still a relative unknown), most researchers agree that the full impact of e-procurement has not yet been realized and that the adoption and integration of EPTs into the business mainstream is occurring at a much slower pace than expected (Davila *et al.*, 2003). Indeed, studies have shown that while over 70 percent of American buyers use internet technologies at work (Caridi *et al.*, 2004), the percentage of business procurement conducted electronically is relatively low – ranging from 10 percent (Qualyle, 2005) to 20 percent (Kulp *et al*., 2006).

ICT had been used in the integration of design, delivery, and suitability of supply chain

Respondents were asked if, ICT had been used in the integration of design, delivery, and suitability of supply chain. From the findings, the researcher noted that a mean of 2.73 which implied that majority of the respondents disagreed to the statement. This implied that much as

DDA has tried to integrate ICT to help in supply chain management, but it still has a long way to achieve a sustainable integrated supply chain.

ICT standards and system met customer requirements

Respondents were asked, if the set ICT standards and system met customer requirements and enabled performance transformation and innovation. From the findings, the researcher noted that a mean of 2.88 which implied that majority of the respondents disagreed to the statement. This concurs with Hage(2005) who noted that e-procurement has made business opportunities with the public Government more transparent, reduced firms' transaction costs, increased opportunities for feedback and cooperation between firms and public agencies. It has also provided specialized information and assistance in public procurement, with a high satisfaction level and efficiency standards, thus meeting customers' requirements

Adoption of ICT in DDA plays a major role in enhancing procurement performance

Respondents were asked, if adoption of ICT in DDA played a major role in enhancing procurement performance? From the findings, the researcher noted that a mean of 3.63 which implied that majority of the respondents agreed to the statement. This implied that DDA has embraced the use of ICT as way of streamlining processes in the procurement function. This allowed customers and suppliers to increase coordination through the internet in terms of inventory management, demand management and production planning (Lee and Whang, 2001*)* which in the long run enhances procurement performance.

4.5 Contract Management

The third objective of the study was to examine how contract management affects procurement performance in public sector organisations**.** In order to achieve this objective, a five point likert scale with numerical values ranging from 1-5 was used. Therefore the

average mean was 3. All responses with a mean value above the average mean of 3 accounted for agreement whereas all responses with a mean value below the average mean accounted for disagreement. The findings for descriptive statistics are shown below;

Table 4-4: Descriptive statistics on contract management

Contract management attributes	N	Min	Max	Mean
Each procurement contract has a specific staff appointed as a contract Manager	52	1	5	4.12
Contract managers make regular site visits to ensure that quality is not compromised	52	1	5	4.50
DDA inspects to verify that goods, equipment and services conform to the specifications	52	1	5	3.87
DDA has a fully-fledged Quality assurance and inspection unit	52	1	5	3.21
Contracts are terminated due to poor performance and breach of contractual terms.	52	1	5	4.50
There are clearly laid down dispute resolution clauses.	52	1	5	4.52
Contracts are only awarded to the best evaluated and responsive bidder.	52	1	5	4.60
Constantly poor performers are deleted of the pre-qualified List	52	1	5	3.62
Supply contracts have specific clauses regarding penalty, dispute resolutions, force majeure, delivery terms and payment terms	52	1	5	4.65

Source: Primary Data (2016)

Procurement contract had a specific staff appointed as a contract manager

The respondents were asked, if each procurement contract had a specific staff appointed as a contract manager. From the findings, the researcher noted that a mean of 4.12 which implied that majority of the respondents agreed to the statement. This implied that for every contract entered into at DDA, there is a nominated contract manager to oversee that the all the requirements as per contract are met to enhance performance and value for money in the long run. In the interviews carried, a question was posed as to whether each project has a designated manager in charge of it, some of the respondents commented that no contract is

undertaken without a contract manager and I was given an example of the recent rehabilitation contract in Busia, where the project could not kick off until they got a response from the contract manager on the due diligence undertaken which is a good practice for any public organisation. The results are consistent with the Working Document for Field Testing May 2009 it shows that a contract manager in harmonized monitoring and evaluation Indicators for procurement and supply management systems is key in that tracking key aspects of Procurement and Supply Management (PSM) should be taken care of for corrective action to continuously improve the effectiveness of a program or a system.

Contract managers made regular site visits to ensure that quality is not compromised

Respondents were asked if contract managers made regular site visits to ensure that quality is not compromised. From the findings, the researcher noted that a mean of 4.50 which implied that majority of the respondents agreed to the statement. This implied that to a greater extent DDA ensured that quality was not compromised by facilitating the designated contract managers to undertake the site visit assignments. These findings are agreement with Thai, (2004), Lysons and Farrington , (2006) who stated that contract management focuses on the achievement of three goals of quality products or services, delivery on time and within budget. However some respondents pointed out that due to limited funding, some of the number of the visits are cut short and later on disregarded hence the need for DDA to set aside funds for undertaking this important activity.

DDA inspected to verify that goods, equipment and services conform to the specifications

Respondent were asked if DDA inspected to verify that goods, equipment and services conform to the specifications. From the findings, the researcher noted that a mean of 3.87 which implied that majority of the respondents agreed to the statement. The results from the study were emphasized by Lisa M. Ellram et al 2007's views where they noted that "Put the

best people in services supply management. Without this commitment to getting the best people in services supply management, failure is inevitable. Any organization needs some trailblazers to set the standard, people who know what is possible and can develop a vision for formalizing services".

DDA had a fully-fledged Quality assurance and inspection unit.

DDA has a fully-fledged quality assurance and inspection unit. From the findings, the researcher noted that a mean of 3.21 which implied that majority of the respondents agreed to the statement. This implied that lack of a fully-fledged quality assurance and inspection affected the quality of goods and services delivered and therefore translate into huge gaps in organizational performance. The trend of responses implied that great efforts were put in place to inspect the goods, equipment and services which led to fully-fledged quality assurance and inspection unit. This concurs with Kaufmann, (1999); Gebauer and Segev, (2001) who noted that, "one of the strategic tasks for inspection management is supplier management is key".

Contracts are terminated due to poor performance and breach of contractual terms.

Contracts are terminated due to poor performance and breach of contractual terms. From the findings, the researcher noted that a mean of 4.50 which implied that majority of the respondents agreed to the statement .This implied that the regulations in place helped to keep the contractors in check, which enhanced procurement performance in DDA.

Constantly poor performers are deleted off the pre-qualified.

Respondents were asked, if constantly poor performers are deleted off the pre-qualified. From the findings, the researcher noted that a mean of 3.62 which implied that majority of the respondents agreed to the statement .This implied that DDA upheld the legal contractual

requirements and non-compliance leads to elimination. This is in line with Baquero (2005) who suggests that the focus be put on what projects can deliver rather than how much the project costs which calls for high level of performance management in the entire process. Therefore, the appointment of competent contractors can increase the chance of success. Quality of service delivered is directly related to time and cost, and vice versa. A poorly managed project can result in extra cost and time extensions.

There are clearly laid down dispute resolution clauses.

Respondents were asked if there were clearly laid down dispute resolution clauses. From the findings, the researcher noted that a mean of 4.52 which implied that majority of the respondents agreed to the statement. This implied that there were administrative mechanisms in place to ensure that good services were delivered to the organization. This is in line with Acharya *et al*. (2006) who argued that claims and disputes, which generally arise as a result of changes, errors or omissions, adversely affect the performance and quality of the finished product. Any errors in meeting quality in technical performance or time more often than not result in a loss to a contractor or the dissatisfaction of the client.

Contracts are only awarded to the best evaluated and responsive bidder(4.60)

Respondents were asked , if contracts were only awarded to the best evaluated and responsive bidder. From the findings, the researcher noted that a mean of 4.60 which implied that majority of the respondents agreed to the statement. This implied that critically analysis was done before appending signatures in order to award the best contractors .Rahman (1997) also echoed, the selection of contractors as a significant aspect in achieving project success, where prequalification is necessary to make an initial assessment of the interested the party's suitability to undertake the works.

4.6 Procurement Performance

Table 4-5: Descriptive statistics on Performance

Procurement performance attributes	N	Min	Max	Mean
Procurement planning greatly affects procurement performance	52	1	5	4.65
Lack of training in ICT affects procurement performance	52	1	5	4.25
Adoption of ICT contributes to procurement performance	52	1	5	4.50
Timely submission of Procurement plans plays a major role in ensuring timely procurements.	52	1	5	4.63
DDA procurements are executed in line with agreed upon contractual terms conditions and obligations	52	1	5	3.88
DDA usually appoints contract managers to oversee various procurements to enhance performance	52	1	5	4.31
E-Procurement affects staff performance	52	1	5	3.87

Source: Primary Data (2016)

Procurement planning greatly affects procurement performance.

Respondents were required to state to what extent procurement planning affected procurement performance. It was noted that that a mean of 4.65 was obtained which is greater than 3, it implied that majority of the respondents agreed to the statement. This implies that procurement plans influenced procurement performance in the sense that they provided focused and efficient utilization of the available resources, helped in budgeting and planning and therefore with adequate provision of funds due to procurement plans, performance is assured. This is agreement with James (2004), who stated that "procurement planning endeavours to answer the questions of what do you want to procure; when to procure it; where to procure them from; when the resources be available; the methods of procurement to be use; how timely procurement or failure will affect the user of the item(s); the procuring and disposing entity; efficient in the procurement process; and the people to be involved in the procurement".

Lack of training in ICT affects procurement performance

Respondents were required to state to what extent lack of training in ICT affected procurement performance. It was noted that that a mean of 4.25 was obtained which is greater than 3, it implied that majority of the respondents agreed to the statement. The findings concur with William (2009) that in a work context, individuals must possess a range of personal competencies along with task specific competencies to perform effectively and efficiently. Russell (2004) states that, if workforce is not adequately educated in procurement matters, serious consequences including; breaches of code of conduct may occur. Barnes (2004) argues that, specific areas of knowledge must be developed and/or strengthened to enable procurement officers meet their challenges.

Adoption of ICT contributes to procurement performance.

Respondents were required to state to what extent lack of training in ICT affected procurement performance. It was noted that that a mean of 4.50 was obtained which is greater than 3, it implied that majority of the respondents agreed to the statement. The findings agree with Cohen et al (2002) that, ICT tools are one of the most important enablers of effectiveness and are a source of competitiveness. The findings also collaborate with the findings of Helo et al (2008) that enterprise resource planning (ERP) is a cross-functional enterprise system driven by an integrated. They say that ERP gives a company an integrated real-time view of its core business processes. ERP facilitates information flow between all business functions inside the organization, and manages connections to outside stakeholders.

Timely submission of procurement plans

Respondents were asked, if timely submission of procurement plans played a major role in ensuring timely procurements. It was noted that that a mean of 4.63 was obtained which is greater than 3, it implied that majority of the respondents agreed to the statement.

DDA procurements are executed in line with agreed contractual terms conditions and obligations

Respondents were asked, if DDA procurements were executed in line with agreed contractual terms conditions and obligations. It was noted that that a mean of 3.88 was obtained which is greater than 3, it implied that majority of the respondents agreed to the statement.

DDA usually appoints contract managers to oversee various procurements

Respondents were asked, if DDA usually appointed contract managers to oversee various procurements to enhance performance. It was noted that that a mean of 4.31 was obtained which is greater than 3, it implied that majority of the respondents agreed to the statement.

E-Procurement affects staff performance

Respondents were asked, if E- Procurement affected staff performance. It was noted that that a mean of 3.87 was obtained which is greater than 3, it implied that majority of the respondents agreed to the statement. This is because E-procurement is an automated systems that removes manual and duplicated processes, which leads to efficiency and effectiveness. This calls for change management in people, processes and systems which affects staff performance. This concurs with Rosa (2005) who noted that "when a new system is introduced, there is a need to incorporate procurement reform into Government law to institutionalize change in order for the following to be successfully executed; training and education, performance measurement, dispute resolution, system oversight, streamlining of

the acquisition and business process, and embedding the best of supply chain management techniques in statewide policy and process. Some of this cannot be done well, or done at all, without,

4.7 Correlation analysis

Table 4-6: Procurement planning and procurement performance

Ho: There is no significant relationship between procurement planning and procurement performance
Ha: There is a significant relationship between procurement planning and procurement performance

Correlations

		planning	performance
Planning	Pearson Correlation	1	.880**
	Sig. (2-tailed)		.000
	N	52	52
Performance	Pearson Correlation	.880**	1
	Sig. (2-tailed)	.000	
	N	52	52

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

Source: Primary Data (2016)

Table 4.6 measures the strength and direction of the linear relationship between procurement planning and procurement performance using the Pearson correlation. Since r =0 .880, there is a positive and significant linear relationship between procurement planning and procurement performance. This implies that as the procurement planning improves, there is efficiency in the procurement process thus improve procurement performance. These results concur with Basheka (2008) that procurement planning is one of the primary functions of procurement with a potential to contribute to the success of local government operations and improves service delivery.

Since the *p=0.000* <0.01). Since 0.000 is less that 0.01 the study concludes that There is a significant relationship between procurement planning and procurement performance. The findings agree with Kennard (2006) indicating that procurement plan has the potential to cut costs, shorten timescales and enhance stakeholder relationships, reduce risks and improve risks.

Table 4-7: ICT and procurement performance

Correlations

		ict	performance
Ict	Pearson Correlation	1	.810**
	Sig. (2-tailed)		.000
	N	52	52
Performance	Pearson Correlation	.810**	1
	Sig. (2-tailed)	.000	
	N	52	52

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

Source: Primary Data (2016)

Table 4.7 measures the strength and direction of the linear relationship between ICT and procurement performance using the Pearson correlation. Since *r* =0 .810, there is a strong positive linear relationship between ICT and procurement performance. This implies that application of ICT in the procurement process leads to efficiency and effectiveness. According to Lysons(2006), ICT has been applied in the procurement function to enhance the efficiency and effectiveness of the function and streamline business processes. It has allowed businesses to focus more on serving customers and earning revenue through reduced lead times since organisation can easily keep track of the past trends and performance of various sectors. Furthermore Schapper, *et al* (2006) indicated that electronic commerce (e-

commence) has been in public sectors to enhance transparency in the procurement process through effective audit and monitoring of low value transactions

Since the p=0.000 <0.01). Since 0.000 is less that 0.01, we reject the null hypothesis (Ho) and conclude that there is a significant relationship between ICT and procurement performance. According to Acher 2005, use of e- Procurement by the public sector organizations has increased efficiency and cost savings, transparency and reduced corruption in procurement services which in the long run has enhanced performance.

Contract management and procurement performance

Faisal *et al.,* (2006) define contract management as a series of administrative procedures and office work, which in their majority are performed by the project manager. Thai (2004) as well as Lysons and Farrington, (2006), state that contract administration focuses on the achievement of three goals; quality, cost and time.

Table 4-8: Contract management and procurement performance

Correlations

		contract	performance
Contract	Pearson Correlation	1	.991**
	Sig. (2-tailed)		.000
	N	52	52
Performance	Pearson Correlation	.991**	1
	Sig. (2-tailed)	.000	
	N	52	52

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

Source: Primary Data (2016)

Table 4.8 measures the strength and direction of the linear relationship between contract management and procurement performance using the Pearson correlation. Since r =0 .991,

there is a strong positive linear relationship between contact management and procurement performance. This implies that as the contract management improves, it leads to efficiency and effectiveness in the procurement process thus improving procurement performance. This is in support to Xiao, (2002), "who asserts that contractor performance has been defined in terms of cost, time and quality which is critical to the success of any project". Improved contractor performance leads to increased client satisfaction and improvement in the reputation of contractors and hence their competitiveness in the market.

Since the p=0.000 <0.01). Since 0.000 is less that 0.01, the study concludes that there is a significant relationship between contract management and procurement performance. This concurs with Thai (2004) who noted that contract administration focuses on the achievement of three goals; quality cost and time. If quality, cost and time are effectively and efficiently managed, procurement performance is enhanced.

4.8 Regression Analysis

The study conducted a multiple linear regression analysis to determine the relationship between independent variable and the dependent variable. The regression model was as follows: $Y= \beta 0+ \beta 1X1+\beta 2X2+ \beta 3X3$ Where: Y is the dependent variable (procurement performance), $\beta 0$ is the regression coefficient/constant/Y-intercept, $\beta 1$, $\beta 2$, $\beta 3$ are the slopes of the regression equation, X1 is the Procurement Planning, X2 is the Information Communication technology(ICT), X3 is the contract Management, while α is an error term at 95% confidence level.

1. *Ho: Procurement planning does not affect procurement performance*
   Ha: Procurement planning affects procurement performance

2. *Ho: ICT does not affect procurement performance*
   Ha: ICT affects procurement performance

3. *Ho: Contract management does not affect procurement performance*
   Ha: Contract management affects procurement performance

The three independent variables that were studied, explain 65.3% of the procurement performance as represented by the adjusted R2. This therefore means that other factors not studied in this research contribute 34.7% of the procurement performance. Therefore, further research should be conducted to investigate the other factors (34.7%) that affect procurement planning in the public services.

Table 4-9: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.825a	0.682	0.653	0.10056

a. Dependent Variable: Performance b. Predictors: (Constant), planning, ICT, Contract ,

Source: Primary Data (2016)

Table 4-10: Coefficients of determination

	Unstandardized Coefficients		**Standardized Coefficients**		
Model	**B**	**Std. Error**	**Beta**	**T**	**Sig.**
Constant	.336	.210		1.492	.145
planning	.252	.094	.302	2.675	.004
ICT	.786	.073	272	3.212	.003
Contract	.231	.060	.894	13.031	.001

Source: Primary Data (2016)

The regression equation will be; Y=0.336+ 0.302X1 + 0.272X2 + 0.894X3

X1 on the regression model represents procurement planning, X2 represents application of ICT and X3 represents contract management.

The regression equation above has established that taking all factors into account (procurement planning, contract management , Information communication (ICT) tools, constant at zero, procurement performance will be an index of 0.336. The findings presented also shows that taking all other independent variables at zero, a unit increase in procurement planning will lead to a 0.252 increase in the scores of procurement performance. The P-value was 0.004 which is less than 0.01 and thus the relationship was significant.

In addition, the study also found that a unit increase in ICT support will lead to a 0.786 increase in procurement performance. The P-value was 0.003 and thus the relationship was significant. Lastly, the study found that a unit increase in contract management will lead to a 0.231 increase in the scores of procurement performance. The P-value was 0.002 and thus the relationship was significant.

Table 4-11: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	143.777	4	35.694	8.8673	.000b
Residual	102.098	48	3.967		
Total	245.875	52			

a. Dependent Variable: Procurement Planning b. Predictors: (Constant), planning, ICT, Contract, ***Source: Primary Data (2016)***

The significance value is 0.000 which is less than 0.05 thus the model is statistically significance in predicting how ICT and contract management, influence procurement performance.

4.9 Conclusion

The above chapter presented data obtained from the research, data analysis and discussion of finding. From the fidings it was noted that there is a positive and significant relationship between procurement planning, application of ICT, contract management and procurement performance.

CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the major findings of the research study were interpreted and explained in regards to the study objectives. The study sought to ascertain the factors affecting procurement performance in public sector. The chapter presents a summary of the research findings, their discussion, conclusions and recommendations

5.2 Summary of Findings and their theoretical implications

The study revealed a number of findings. These findings are summarised below.

5.2.1 Procurement Planning and Procurement Performance

The first objective was to establish the effect of procurement planning on procurement performance. From the study, the respondent agreed that all the procurement planning attributes affected procurement performance since the mean for all the attributes was above 3. This implied that : procurement requirements were always prioritized ,reviewed and updated ,procurement plans were realistic and achievable, staff had procurement planning skills and the ability to determine the total time of procurement process ; key stakeholders are involved and consulted before procurement plans are approved and drafted ;approvals were obtained before the procurement plan was put to use and were always forwarded to PDU .

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.

Procurement plans therefore influence procurement performance 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.

5.2.2 Adoption of ICT and procurement performance

The second objective was to establish the effect of ICT on procurement performance. From the study, the respondent agreed that 5 of the ICT attributes affected procurement performance since the mean for all the attributes was above 3. This implied that respondents agreed that adoption of ICT in DDA played a major role in enhancing procurement performance of government officials and elected leaders who had increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector. It further implied that Public authorities were implementing scalable communication infrastructures to promote economic development implementation of E-Procurement and operational challenges were reduced with the adoption of ICT at DDA. However it was noted that procurement department was lagging severely in ICT adoptions.

From the study, 4 of the ICT attributes had a mean below 3.This implied that DDA had not applied ICT Technology in the procurement process. ICT had not been used in the Integration of design, delivery, and suitability of supply chain since DDA did not use ICT in enhancing procurement performance: Even the set ICT standards and system did not meet customer requirements and never enabled performance transformation and innovation.

This implied that most respondents appreciated the importance of ICT as a factor positively influencing procurement function. These findings are in agreement with Hagén, and Zeed, (2005) who postulates that in order to meet today's operating challenges, regional and local governments are turning to ICT to enhance the services for residents, businesses and visitors,

and improve internal efficiencies by lowering costs and increasing productivity. This is also in support to the view held by Kirungu, (2011) in Kenyan study, who argues that manual systems are a source of major inefficiencies in regulation and operations of the function. ICT needs to be adopted to ensure proper functioning of the procurement system.

5.2.3 Contract Management and Procurement Performance

According to the study objectives, the study sought to establish the effect of contract management on procurement performance. From the study findings, all the contract management attributes affected procurement performance since the mean for all the attributes was above 3. This is because; each procurement contract had a specific staff appointed as a contract Manager and they made regular site visits to ensure that quality is not compromised; DDA had a fully-fledged quality assurance and inspection unit that inspected to verify that goods, equipment and services conform to the specifications. Further there are clearly laid down dispute resolution clauses. Contracts were only awarded to the best evaluated and responsive bidder and poor performers were constantly deleted of the pre-qualified List ; Supply contracts have specific clauses regarding penalty, dispute resolutions, force majeure, delivery terms and payment terms and contracts are terminated due to poor performance and breach of contractual terms

5.3 Conclusions

5.3.1 Procurement Planning and procurement performance in Dairy Development Authority

This study has revealed that procurement planning objectives helps to improve over all procurement performance. It uncovers the likely scenarios where such lack of procurement plan could greatly affect the overall performance of PDU and PDEs in general. This implies

that as the procurement planning improves, there is efficiency in the procurement process thus improve procurement performance.

5.3.2 Adoption of ICT and procurement performance in Dairy Development Authority

The study findings revealed that there is positive linear relationship between ICT and procurement performance. This implies that application of ICT in the procurement process leads to efficiency and effectiveness. Thus supporting the hypothesis that adoption of ICT objective positively contributes to the procurement performance in Dairy Development Authority. This is a key lesson learnt in that for quality of procurement to be enhanced ICT adoption also play a very vital role which Dairy Development Authority should not leave behind in its drive and initiative to further grow and build the Organization.

5.3.3 Contract management and procurement performance in Dairy Development Authority

From the study it was learnt that the correlation between contract management and procurement performance in Dairy Development Authority. is, positive and statistically significant. Since the correlation results showed that relationship between correlation between contract management and procurement performance in Dairy Development Authority. is significant the management has to play a crucial role to enhance contract management to properly drive understanding from the top management to the lower management staff.

Over all, the study set out to establish the factors that affect procurement performance in public sectors. Findings from the same study showed that the three independent variables that were studied, explain 65.3% of the procurement performance as represented by the adjusted R2. This therefore means that other factors not studied in this research contribute

34.7% of the procurement performance. Therefore, further research should be conducted to investigate the other factors (34.7%) that affect procurement planning in the public services. all the objectives positively affected procurement performance at DDA.For effectiveness, efficiency, and quality performance in the procurement process within DDA and the public sector in general, procurement planning, ICT Adoption and Contract Management need to be taken as an important aspect in the procurement process.

5.4 Recommendations

This study makes the following recommendations.

5.4.1 Procurement planning and procurement performance of DDA

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 the entity's procurement performance. 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.

Organisations should put in place a formalized system for adjustments made during the scheduling of the activities and a standard procurement plan template to enable timely submission of user departments' procurement plan, DDA should think of investing into electronic procurement software that can be linked with the existing financial software, this will enable the organization to critically monitor the progress on all procurement activities , highlight potential bottlenecks that may result from delayed initiation of any planned procurement activities.

5.4.2 Application of ICT and procurement performance in DDA

The study identified some weakness and sluggishness in the appreciation of the use of ICT in the performance of the procurement function, one of them being lack of a fully functional electronic procurement database. To this end, Organizations'' management and the procurement unit should work towards constituting an effective procurement and supplier's database.

5.4.3 Contract management and procurement performance In DDA

Public Organisations should take out regular supplier site visits especially to those suppliers that are viewed as strategic, they should also plan to hold annual supplier conferences where best performing vendors can be recognized and finally the organization should put in place supplier development and certification programs to enhance continued quality improvements in the supply chain.

There is need to improve Contract Management in order to improve the performance of the organization especially in its supply chain function. Organisations should benchmark best practices on how to manage third parties (contractors) and the roles between the parties involved in the supply chain should be very clear. Also in order to manage contracts Organisations should introduce project management skills especially in the following dimensions – cost, time and quality.

5.5 Areas for further research

From the findings of the study we release various loop holes in the procurement function which greatly deter performance and hence open up research opportunities that can be explored by various scholars especially in ascertaining suitable resolutions necessary to enhance procurement performance. It is important that other researchers explore into other

variables affecting procurement performance like ethics and professionalism of procurement staff and stakeholders, value for money, transparency and accountability tendering process as well as drafting bid documents and specifications.

In order to strengthen the findings of this study, it is therefore recommended that further research be done as a way of exploring into other factors affecting procurement performance like ethics and professionalism of procurement staff and stakeholders, value for money, transparency and accountability tendering process as well as drafting bid documents and specifications.

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APPENDICES

APPENDIX 1: ITEM STATISTICS FOR RELIABILITY TEST

Item Statistics

	Mean	Std. Deviation	N
COMOBJ1	3.79	.776	52
COMOBJ2	3.73	.910	52
COMOBJ3	3.54	.896	52
COMOBJ4	3.54	.959	52
COMOBJ5	3.60	1.071	52
COMOBJ6	3.42	.997	52
COMOBJ7	3.85	1.055	52
COMCHN1	3.87	.864	52
COMCHN2	3.71	.825	52
COMCHN3	3.46	1.019	52
COMCHN4	3.88	.943	52
COMCHN5	3.44	.826	52
COMCHN6	3.60	.975	52
COMCHN7	3.58	1.226	52
COMCHN8	3.06	1.056	52
COMCHN9	3.23	1.022	52
COMCHN10	3.73	.819	52
COMCHN11	3.48	.980	52
COMMSG1	4.06	.802	52
COMMSG2	4.04	.766	52
COMMSG3	3.88	.784	52
COMMSG4	4.08	.788	52
COMMSG5	3.98	.939	52
COMMSG6	4.04	.949	52
QTM1	4.15	.751	52
QTM2	4.12	.646	52
QTM3	3.88	.900	52
QTM4	3.96	.766	52
QTM5	4.06	.777	52
QTM6	4.25	.682	52

APPENDIX 2: QUESTIONNAIRE FOR RESPONDENTS

Dear Respondent,

My Name is Kiryewala Martha Stacey, a student of Uganda Martyrs University Nkozi [UMU], pursuing a Master's in Business Administration (MBA). As required by the institution for the award of the degree, I am carrying out a research study on "Factors affecting Procurement Performance of government institutions, a case study of Dairy Development Authority (DDA)". You have been chosen to provide very crucial and vital data necessary for this purpose. All the data you give will be treated with utmost confidentiality and will basically be used for academic purposes only.

Please take a few minutes to answer the questions below.

Thank you in advance.

Instructions: Please tick appropriately in the boxes provided

Part 1 Background Information

Gender a. Male ☐ b. Female ☐

Level of Education

Master's Degree			Bachelor's Degree	
Diploma			Professional Certificate	

Age Group

Below 25			25 – 35	
36 – 45			Above 45	

Period of Service

0-2 years			3-5 years	
6-8 years			Above 8 years	

Category of Respondent

DDA Employee			Beneficiary / Client	
Supplier / Vendor				

*Using the given scale, **please tick ( )** the number that best describes how you strongly agree or disagree with the statement.*

Relationship	Strongly	Agree	Not sure	Disagree	Strongly
Quality Codes	*5*	*4*	*3*	*2*	*1*

SECTION B: PROCUREMENT PLANNING

	Procurement planning attributes	**5**	**4**	**3**	**2**	**1**
1	Procurement staff have Procurement planning skills					
2	Procurement plan is frequently reviewed and updated					
3	Procurement plans are always forwarded to PDU					
4	Procurement staff circulate approved procurement plan to users					
5	Procurement requirements are prioritised					
6	Approval is Obtained before the procurement plan is put to use					
7	Staff have the ability to determine total time of the procurement					
8	Procurement plans are realistic and achievable					
9	The methods used for procurement are easily determined					
10	Key stakeholders are involved and consulted before procurement plans are approved/ drafted					

SECTION: **INFORMATION COMMUNICATION TECHNOLOGY**

	ICT attributes	**5**	**4**	**3**	**2**	**1**
1	Government officials and elected leaders have increasingly come to realize that public agencies must utilize ICT in order to enhance the procurement processes in the public sector.					
2	Has your organisation applied ICT Technology in your procurement					
3	Operational challenges are reduced with the adoption of ICT at DDA					
4	Public authorities are implementing scalable communication infrastructures to promote economic development implementation of E-					
5	The procurement department is lagging severely in ICT adoptions					
6	ICT has been used in the Integration of design, delivery, and suitability of supply chain					
7	DDA uses ICT in enhancing procurement performance					
8	The set ICT standards and system meet customer requirements, enable performance transformation and innovation.					
9	Does adoption of ICT in DDA play a major role in enhancing procurement performance					

SECTION D: CONTRACT MANAGEMENT

Relationship	Strongly	Agree	Not sure	Disagree	Strongly
Quality Codes	*5*	*4*	*3*	*2*	*1*

	Contract management attributes	**5**	**4**	**3**	**2**	**1**
1	Each procurement contract has a specific staff appointed as a contract					
2	Contract managers make regular site visits to ensure that quality is not compromised					
3	DDA inspects to verify that goods, equipment and services conform to the specifications					
4	DDA has a fully-fledged Quality assurance and inspection unit					

5	Contracts are terminated due to poor performance and breach of contractual terms.					
6	There are clearly laid down dispute resolution clauses.					
7	Contracts are only awarded to the best evaluated and responsive					
8	Constantly poor performers are deleted of the pre-qualified List					
9	Supply contracts have specific clauses regarding penalty, dispute resolutions, force majeure, delivery terms and payment terms					

SECTION E: PROCUREMENT PERFORMANCE

	Procurement performance attributes	**5**	**4**	**3**	**2**	**1**
1	Procurement planning greatly affects procurement performance					
2	Lack of training in ICT affects procurement performance					
3	Adoption of ICT contributes to procurement performance					
4	Timely submission of Procurement plans plays a major role in					
5	DDA procurements are executed in line with agreed upon contractual					
6	DDA usually appoints contract managers to oversee various procurements					
7	E-procurement affects staff performance					

THANK YOU FOR YOUR TIME

APPENDIX 3: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

Source: Krejcie & Morgan, 1970

Krejcie, Robert V., Morgan, Daryle W., "Determining Sample Size for Research Activities", Educational and Psychological Measurement, 1970