THE EFFECT OF PROCUREMENT MANAGEMENT ON PROJECT PERFORMANCE: A CASE OF THE UGANDA MILLENNIUM SCIENCE INITIATIVE PROJECT

By

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A DISSERTATION SUBMITTED TO THE SCHOOL OF MANAGEMENT SCIENCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE AWARD OF A MASTERS DEGREE IN MANAGEMENT STUDIES (PROJECT PLANNING AND MANAGEMENT) OF UGANDA MANAGEMENT INSTITUTE

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DECLARATION

I **Hellen Opolot Naluyima**, declare that this study is a result of my own independent research efforts and investigation and has not been published or submitted for any award in the institute before. Where it is indebted to others, due acknowledgement has been done.

Signed: …… Date: …….

Hellen Opolot Naluyima

APPROVAL BY SUPERVISORS

We certify that Hellen Opolot Naluyima carried out the study and wrote this dissertation under our supervision. This dissertation has been submitted for examination with our approval as the supervisors.

Signature: ……. Date: ……..

DR. KEEFA KIWANUKA

Signature: …….. Date: ……..

MR. JOSEPH KAMPUMURE

DEDICATION

This dissertation is dedicated to the Almighty God, friends, my dear husband Apollo Joseph Opolot and children who have been such an encouragement throughout this Masters Programme.

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I would like to express my thanks and gratitude to various people who contributed to the completion of this work. It is not possible to mention all of you, but I am indebted to everyone.

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LIST OF ACRONYMS

CAIC	Corporate Affairs and International Collaboration
CIPS	Chartered Institute of Purchasing & Supply
CTB	Central Tender Board
FAP	Finance Accounts and Procurement
IAPWG	Inter Agency Procurement Work Group
LCDs	Less Developed Countries
NORAD	Norwegian Agency for Development Co-operation
MFPED	Ministry of Finance Planning and Economic Development
MSI	Millennium Science Initiative
PIP	Project Implementation Plan and Operations Manual
PDU	Procurement and Disposal Unit
PPDA	Public Procurement and Disposal of Public Assets
PDEs	Procuring and Disposing Entities
SPSS	Statistical Package for Social Scientists
STM	Science and Technology Management

STPC	Science Technology and Innovation Policy and Coordination
UIRI	Uganda Industrial Research Institute
UNCST	Uganda National Council for Science and Technology

ABSTRACT

Project management has become increasingly important in the development of any nation. Various organizations have used project management techniques as a means of bridging the gap between failure and success in implementation of projects. Despite this increasing awareness of project management by organizations, projects still fail. It is these shortfalls that motivated the researcher to study the effects of procurement management on project performance. The researcher specifically assessed three key variables in procurement management including; Procurement planning, solicitation of bids and contract management. The target sample for the study was 108 but the response was 57 (a response rate of 53%). The subjects were selected by simple random sampling and purposive sampling. Frequencies, percentages, spearman rank order correlation, regression and ANOVA were conducted to analyze quantitative data. Content analysis was used to analyze qualitative data. The study employed a cross- sectional study design, using a structured questionnaire and interview guide to obtain primary data and documentary review for secondary data. The results indicate that the variables defining procurement planning ($r = 0.349$, $N=57$, $p= .008$), solicitation ($r = 0.273$, $N=57$, $p= .040$), and contract management ($r = 0.077$, $N=57$, $p= .005$) had a significant effect on project performance. The study therefore, recommends that there should be decentralisation of project procurements in order to reduce the burden of procurements on the central procurement and disposal unit, ensuring integrity and transparency of the procurement and disposable unit by curtailing corruption and adherence to the delivery of the agreed quantity and quality of goods and services on time in order to have ssuccessful contract management which is dependent upon what happens during the planning, tendering, evaluation and award phases.

CHAPTER ONE
INTRODUCTION

1.1 Introduction

In Uganda, never before has there been a growing interest in the management and planning of public procurement than it is today. Its management now appears on the agenda of researchers, academia, policy makers and practicing mangers and this could be a function of many factors (Basheka, 2008). In the same line of argument, Arrowsmith and Trybus (2003) assert that the public is particularly sensitive to the fact that a good procurement system results in more goods and services that directly meet the needs of the end user and they are obtained for less money and with speedier delivery. Ntayi (2009) on the other hand, claims that millions of dollars get wasted due to inefficient and ineffective procurement structures, policies and procedures which result into poor service delivery. Although procurement procedures need to be tailored to enhance the fulfillment of different project objectives (Cox and Thompson, 1997, Wardani et al., 2006), clients tend to choose those procurement procedures they have a habit of using, regardless of any differences between projects (Laedreet al., 2006, Eriksson, 2007). In order to enhance change, an increased understanding of how different procurement procedures affect different aspects of project performance in different types of projects is therefore vital.

It is against this background, that the researcher established the effect of procurement management on project performance, a case of the Uganda Millennium Science Initiative (MSI) project. In this study, procurement management is conceived as the independent variable, while project performance is the dependent variable. This chapter will discuss the background to the study under historical, theoretical and contextual areas, the statement of the problem, purpose of

the study, specific objectives, the research questions, the hypotheses, the scope of the study, the significance of the study, the justification of the study and operational definitions of terms and concepts.

1.2 Background to the study

1.2.1 Historical Background

Procurement, a function that was traditionally viewed as a clerical and reactive task has since positioned itself among core organizational functions, and its management is becoming interestingly critical for the well-functioning of any organization, including public institutions both at the local and central levels, along with decentralization and the increasing range of functions performed by governments in most countries as stated by (Basheka, 2008). Prior to the inception of the procurement reforms in Uganda in 1998, procurement was centralized with contracts above the threshold of Two Million Uganda Shillings being awarded by the Central Tender Board (CTB) in the Ministry of Finance (Mukasa, 2009). It was however, later realized by development partners that public procurement was an obstacle to effective service delivery and development, due to the failure by the Central Tender Board to cope with the rapid expansion of government activities especially in a decentralized style along with unique challenges. As a result , the public procurement reforms were designed and a number of recommendations made that led to formulation of a framework through which all operations in the public procurement are to be effected , thus the " Public Procurement and Disposal of Public Assets (PPDA) Act 2003" with the respective PPDA authority.

In the case of the Millennium Science Initiative project, the responsibility of procurement was entirely given to the Procurement and Disposal Unit (PDU) of the Uganda National Council for Science and Technology (PIP Manual, 2007). The scope of responsibilities of the PDU included; managing the procurement programme of the project for goods, works and services in accordance with Government of Uganda and World Bank regulations, by providing technical support and guidance to beneficiaries in all aspects of procurement of Works, Goods and Services. The unit had to ensure that the agent that was contracted and other consultants executed their actions in accordance with the signed contracts.

In addition , the PDU prepared bidding documents for works , goods and related supplies and request for proposals for services including consultant services ; and wherever necessary, assisting the relevant user departments with the preparation of the terms of reference and specifications. The unit also implemented the bid evaluation process and thereafter preparation of bid evaluations report for submission to the relevant authorities for approval. Wherever necessary, the PDU would visit construction sites and participate in site meetings with all parties concerned, to assess progress by reviewing performance certificates for completed work tasks so as to recommend appropriateness for settlement of due payments (UNCST, Project Evaluation report, 2009).

1.2.2 Theoretical Background

The theoretical basis for this study was derived from the "Systems theory to management of projects" which hails directly from the application of modern scientific methods to management (Kerzner, 1997). The systems theory is the widest and arguably the most influential as reports (Boulding, 1956; Checkland, 1999; Jordan, 1968; Bertalanffy, 1968). Its impact on project

management has been enormous, and illustrates both the possibilities and limitations of the scientific method.

Procurement management has roots in the theories of management especially the classical management movement by providing a rational and scientific basis for the management of organizations stemming from the industrial revolution which created a need for efficient planning , organizing , influencing and controlling of all work activities. Administrative Management theory examines organizations as total entities and focuses on ways to make them more effective and efficient. According to Kerzner (2006), the basic function of any manager should incorporate planning, organizing, commanding, coordinating and controlling in an effort to increase productivity and re-examine organizational efficiency and effectiveness.

The management theory informs the management of the procurement function to conduct procurement planning, which is the management function of planning, solicitation development and supplier selection which relates to the organizing function of management and contract management and administration which relates to the control aspects of management in the process of acquisition of inputs for value adding in organizations (Thai, 2005). This study will therefore, be modeled on the postulates of the systems theory to management of projects because a project as the adage goes is a “journey not a destination”. The journey in this case is the MSI projects, each with a level of effectiveness or quality of performance.

1.2.3 Conceptual Background

Procurement according to the PPDA Act (2003) refers to acquisition by purchase, rental, lease, hire purchase, licensee, tenancy, franchise, or any other contractual means, of any type of works, services or supplies or any combination. Odhiambo and Kamau (2003) on the other hand defined procurement as the purchasing, hiring or obtaining by any other contractual means of goods, constructions, works and services by the public sector. Lysons (2000) defined procurement as a term most commonly employed to refer to the purchasing of goods and services for the day-to-day operations of a business and argues that it is an essential part of any organization's ability to function effectively and efficiently. The definition of procurement in this study will be adapted from (Leonard, 2000) and will be characterized by purchasing of goods and services for the day-to-day operations of a business to function effectively and efficiently.

Performance has been described as the degree of achievement of certain effort or undertaking. It relates to the prescribed goals or objectives which form the project parameters (Chitkara, 2005). From the project management perspective, it is all about meeting or exceeding stakeholders' needs and expectations from a project. It invariably involves placing consideration on three major project elements, which include time, cost and quality (Project Management Institute, 2004). Tukel and Rom (2001) also concluded that satisfaction of key project stakeholders was the overriding measure of successful project performance. Bryde (2003), states that the satisfaction of multiple stakeholders and the quality of product as well as the process of achieving the objectives amounts to project performance. Project performance in this study will be adapted from Project Management Institute (2004), where it will be characterized by meeting or exceeding stakeholders' needs and expectations from a project.

1.2.4 Contextual Background

This study contextually focuses on the effect of procurement management on the performance of the MSI project. As the implementing agency of the Uganda Millennium Science Initiative Project, the Uganda National Council for Science and Technology (UNCST) had to recruit staff under the PDU and bestow the responsibility for delivery of procurement services of the MSI project as recommended by the donor which was the World Bank (Project Implementation Plan and Operations Manual (PIP), 2007). UNCST is a semi –autonomous Government agency established in 1990 by an Act of Parliament (CAP 209) under the Ministry of Finance Planning and Economic Development (MFPED) to develop and implement strategies for integrating science and technology into the national development process. The UNCST ope rationalizes its mandate through a number of programmes and projects in four broad functional areas of Science Technology Policy and Coordination (STPC), Science and Technology Management (STM), Corporate Affairs and International Collaboration (CAIC) and Finance Accounts and Procurement (FAP) as stipulated in the (UNCST Statute, 1990).

The Uganda MSI Project on the other hand began in 2006 as a central component of the Government's strategy to strengthen the country's scientific and technological capacity. The five-year (later extended by one year), US$33.35 million project was co-financed by the World Bank and the Government of Uganda, for Ugandan universities and research institutes to produce more and better qualified science and engineering graduates, higher quality and more relevant research, and for firms to utilize these outputs to improve productivity for the sake of enhancing S&T-led growth. Besides offering direct grants to individual projects, the Uganda MSI project was also tasked to strengthen the institutional capacities of government departments of Uganda

Industrial Research Institute (PIP, 2007). The project provided competitively –awarded grants to a total of 39 projects in three rounds through three different windows, each dedicated to a specific purpose. Window A funded research groups led by senior researchers and emerging investigators to conduct relevant, high-quality scientific and technological research closely connected to graduate training; Window B funded the creation of undergraduate programs in basic science and engineering at licensed public and private institutions and upgrading of existing degree programs in basic science and engineering and Window C supported private sector cooperation through which firms and researchers define collaborative agendas for solving problems of direct interest to industry, and then pursue solutions collaboratively.

When UNCST got the MSI project, there was need for it to establish its own PDU in 2007. The PDU was well constituted with competent staff and later assigned the guidance of a procurement consultant from the World Bank. The PDU further undertook induction courses that were aimed at inducing them at managing World Bank procurements. Despite the fact that capacity within PDU had been built, there were, still challenges in the project procurement management process as revealed in the UNCST External Audit Reports 2009/10. The World Bank Mission Aide Memoire (2011) points out that some of the Round 2 and 3 projects had closed without receiving their equipment due to challenges during contract management whereby some of the suppliers had failed to comply with the delivery timelines and also requesting for additional funds to process the advance payment guarantee. Another supplier was delayed by the economic crisis in the Eurozone that caused some of the manufacturers to close down. However, there is no empirical evidence that relates procurement management to performance of the MSI project at UNCST.

1.3 Statement of the Problem

Following the approval of the MSI project in 2006, the UNCST instituted a Procurement and Disposal Unit with the responsibility of managing all the institutional and project related procurements. The project ensured that the PDU was well staffed, trained and guided towards the implementation of its activities. It was then envisaged that the PDU would ably manage the procurement activities of the MSI project. Despite these efforts, the MSI project has not performed as expected, with some of the Round 2 and 3 projects closing without receiving their equipment, delayed supply of services and scientific equipment, and at times failure to meet the delivery schedules (World Bank, 2011). If this un-satisfactory performance continues, termination of some of the projects could be recommended by the donor and the original intentions of setting up the MSI project which among others is to strengthen the country's scientific and technological capacity not be realised. There is no empirical evidence on the effect of procurement management on the overall MSI project's performance.

1.4 Purpose of the study

The purpose of this study was to establish the effect of procurement management on project performance, taking a case of the Millennium Science Initiative project.

1.5 Objectives of the study

The study was guided by the following objectives:

a) To determine the effect of procurement planning on the performance of the MSI project;
b) To establish the effect of solicitation of bids on the performance of the MSI project;

c) To establish the effect of contract management on the performance of the MSI project.

1.6 Research Questions

The study answered the following questions:

a) To what extent does procurement planning affect the performance of the MSI project?

b) What is the effect of solicitation of bids on the performance of the MSI project?

c) What is the effect of contract management on the performance of the MSI project?

1.7 Hypotheses of the study

The study was guided by the following hypotheses:

a) Procurement planning significantly affects the performance of the MSI project;

b) Solicitation of bids positively contributes to the performance of the MSI project;

c) Contract management influences the performance of MSI projects.

1.8 Conceptual Framework

The conceptual framework lays out the relationship between the independent and dependent variables. Accordingly, procurement management variables include; procurement planning, solicitation and contract management. While, project performance is the dependent variable, with achievement of project stated objectives, project outputs and project completion time as the determinants of project performance. A figurative representation of the relationship between the stated variables herein is presented in figure 1.

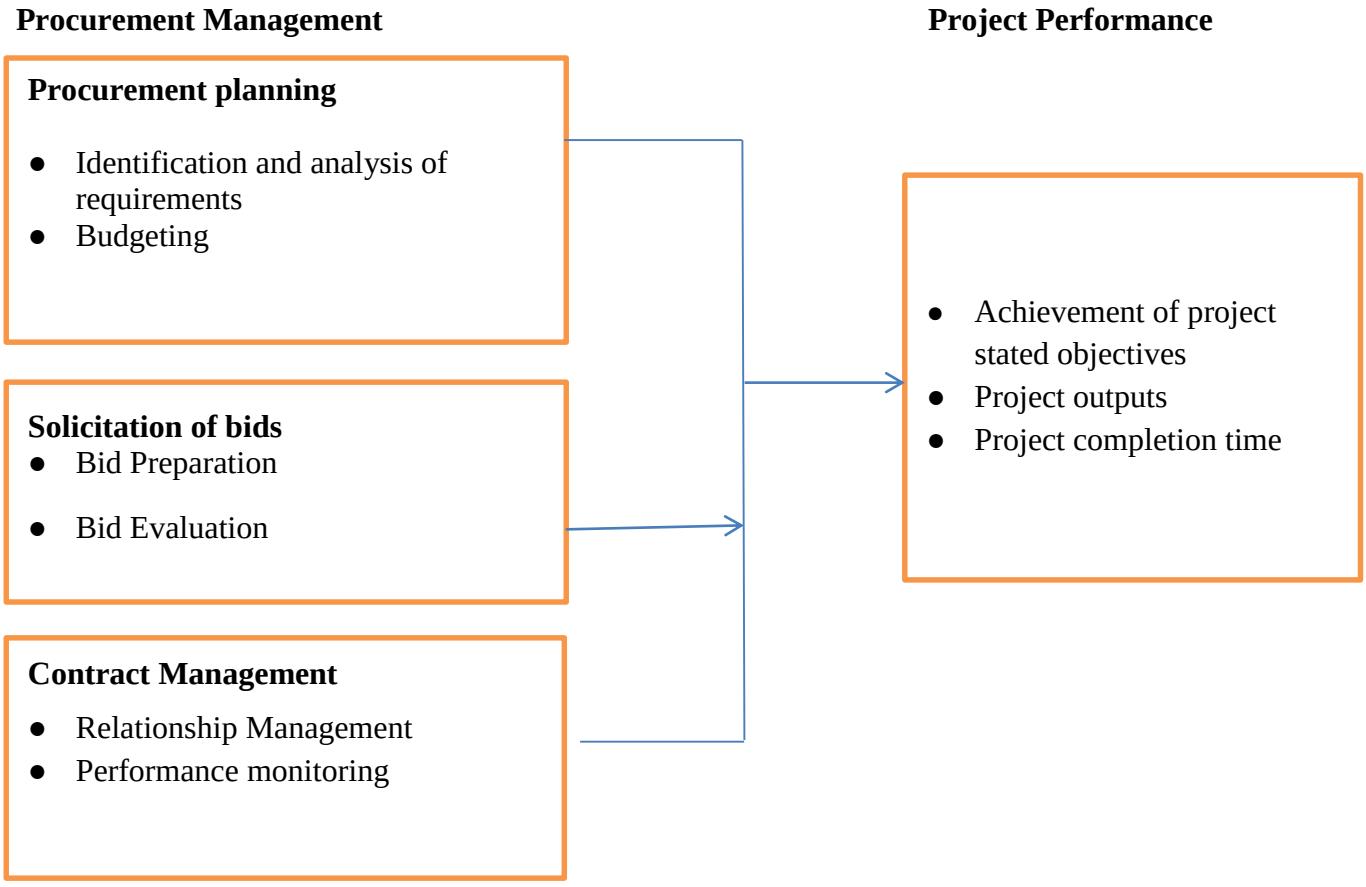

Figure 1: Conceptual Framework

Source: Developed from review of extant literature (Chitkara, 2005; Telgen J, 2004; CIPS, 2005; Agaba, 2011; IAPWG, 2006; Lysons, 2000; Basheka, 2008) and modified by the researcher.

Under this study, two concepts are considered; that is procurement management and performance of MSI project. The concept of Procurement Management has been evolving incrementally and is increasingly being recognized by both private and public sectors as a critical management function that helps organizations and individuals make optimal utilization of resources available in the requisition of goods, services and works.

According to Agaba, (2011), procurement is a systematic process of deciding what, when and how much to purchase, the act of purchasing it and the process of ensuring that what is required is received on time, in the quantity and quality required. Telgen J, 2004, asserts that proper procurement of public goods and services is imperative for good economic management and addressing leakages of government funds.

Performance has been described as the degree of achievement of certain effort or undertaking. It relates to the prescribed goals or objectives which form the project parameters (Chitkara, 2005). From the project management perspective, it is all about meeting or exceeding stakeholders' needs and expectations from a project. It invariably involves placing consideration on three major project elements, which include time, cost and quality (Project Management Institute, 2004). Tukel and Rom (2001) also concluded that satisfaction of key project stakeholders was the overriding measure of successful project performance. Bryde (2003), states that the satisfaction of multiple stakeholders and the quality of product as well as the process of achieving the objectives amounts to project performance.

1.9 Significance of the study

The study will contribute to the quest for knowledge on the effect of procurement management on project performance and provide possible solutions to the problem statement. It is envisaged that this study will create new knowledge and awareness in the area of procurement management to the researcher, various stakeholders and UNCST in reviewing their strategies while implementing subsequent projects. The academia, research institutions, public and private sectors will benefit from the findings and make decision from an informed point of view. The research report will be used by future researchers who wish to explore more on the research problem or other topics in project performance.

1.10 Justification of the study

According to Mugenda & Mugenda (1999), justification refers to the reasons for conducting a study and the importance of carrying it out. Although other researchers have studied about procurement management, the effects of procurement management in the performance of Millennium Science Initiative project have not yet been researched about. It is therefore, anticipated that this study will provide literature that will enhance further research on performance of projects in relation to procurement management and also provide a framework through which future funded projects will be planned for and how they can improve on their procurement processes to perform better.

1.11 Scope of the study

1.11.1 Content scope

This study was limited to procurement planning, solicitation of bids, contract management as independent variables. Project performance which was measured in terms of achievement of project stated objectives, project outputs and project completion time made up the dependent variable.

1.11.2 Geographical scope

The study was carried out among the 39 MSI projects found in Makerere University, Kawanda Research Centre, National Crops Resources Research Institute (NaCRRI) - Namulonge, Busitema University, Gulu University, Kabale University, Mulago Hospital and around Kampala. The study was also conducted at UNCST which was the implementing institution, and Uganda Industrial Research Institute (UIRI) which received support for strengthening to rehabilitate its pilot plants and analytical laboratory facilities.

1.11.3 Time scope

This study investigated how procurement management affected the performance of the MSI project implementation period which was from 2007 when the first call for proposals was made to 2012 when the project officially closed (PIP, 2007).

1.12 Operational definitions

A Project is a series of multi-functional activities and tasks that have specific objectives to be completed within certain specifications, defined start and end dates, funding limits, and consume human and non-human resources. (Kerzner, 2006). In the context of my study, the MSI project was five year project with the main aim of strengthening Uganda's scientific and technological capacity (PIP, 2007).

Performance has been described as the degree of achievement of certain effort or undertaking. It relates to the prescribed goals or objectives which form the project parameters (Chitkara, 2005). Project performance in this study was characterized by meeting or exceeding stakeholders' needs and expectations of the MSI project.

Procurement refers to means of acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise, or any other contractual means, of any type of works, services or supplies or any combination (PPDA Act, 2003). Procurement under the MSI project was characterized by purchasing of goods and services for the day –to- day operations of the beneficiaries to function effectively and efficiently.

Procurement management is the process of acquiring goods and services from outside the performing organization (Project Management Institute, 1996).

Solicitation as referred to in the MSI project , is the collecting and analyzing information about the capabilities of suppliers and service providers within the market to satisfy the project's requirements.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter critically reviews literature related to the effect of procurement management on project performance: A case of the Millennium Science Initiative project. The source of the literature used in the study included; internet, journal articles, newspaper articles, books and publications.

2.2 Theoretical Review

The study was guided by the "Systems theory to management of projects" which hails directly from the application of modern scientific methods to management (Kerzner, 1998). The systems theory is the widest and arguably the most influential as reports (Boulding, 1956; Checkland, 1999; Jordan, 1968; Bertalanffy, 1968). Its impact on project management has been enormous, and illustrates both the possibilities and limitations of the scientific method.

Procurement management has roots in the theories of management especially the classical management movement by providing a rational and scientific basis for the management of organizations stemming from the industrial revolution which created a need for efficient planning , organizing , influencing and controlling of all work activities. Administrative Management theory examines organizations as total entities and focuses on ways to make them more effective and efficient. According to Kerzner (1998) the basic function of any manager should incorporate planning, organizing, commanding, coordinating and controlling in an effort to increase productivity and re-examine organizational efficiency and effectiveness.

The management theory informs the management of the procurement function to conduct procurement planning, which is the management function of planning, solicitation development and supplier selection which relates to the organizing function of management and contract management and administration which relates to the control aspects of management in the process of acquisition of inputs for value adding in organizations (Thai, 2005). This study will therefore, be modeled on the postulates of the systems theory to management of projects because a project as the adage goes is a "journey not a destination". The journey in this case is the MSI projects, each with a level of effectiveness or quality of performance.

2.3 Procurement Planning and Project Performance

Any procurement begins with the planning decision to make a 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 and Wallace, 2000). In Uganda, procurement planning is part and parcel of the traditional planning already familiar in the Uganda government notably, development planning and budgeting. The mandate for procurement planning is derived from the PPDA Act (2003), were user departments are required to prepare annual work plans based on approved budgets, which should be submitted to the PDU to facilitate orderly execution of annual procurement activities. It is also stated that a procurement plan should be integrated into the annual expenditure program to enhance financial predictability, accounting and control over procurement budgets for a financial year.

Procurement planning is one of the primary functions of procurement with a potential to contribute to the success of local government operations and improved service delivery .It is a function that sets in motion the entire acquisition/procurement. Despite this importance, very limited scientific research has been done to examine the extent to which efforts in procurement planning can contribute to effective local governance (Basheka, 2008). He also noted 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. In a decentralized context, means and measures need to be established to effectively link national and sub-national planning processes; to ensure that national priorities are approximately reflected in regional and local policies. Mullins (2003) 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. Minahan (2007) noted that, 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.

However, procurement planning is not taken seriously by most institutions. The reasons for lack of procurement planning by such entities have been the actual lack of understanding of the value of procurement, proper enforcement of rules relating to planning (CPAR Report, 2004). It could also relate to lack of capacity due to limited procurement professionals and lack of commitment and support from management of those organizations. In fact, Thai (2004), maintained that forms and procedures may be convenient and useful tools, but the planning effort will succeed only with the complete commitment and involvement of top management, along with appropriate

personnel that have a stake. This implies that, without thorough procurement planning, the subsequent procurement processes will not yield substantial benefits.

The consequences of poor or lack of procurement planning can never therefore be amusing. The Public Finance (Procurement) Report (2000), summarized these consequences as; procurement failing to timely meet the actual needs of user departments, advantages of scale and bulk purchasing are not achieved, packaging and timing are not utilized to achieve value for money as was realized in the MSI project where some projects received equipment 2 years after implementation yet some were absolute. The contribution of planning in facilitating a**n** efficient and effective performance of 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 (Basheka, 2008).

2.3.1 Identification and analysis of requirements and project performance

Procurement planning involves the process of identifying which needs the Procuring and Disposing Entities (PDEs) want to meet or the services delivered. It involves determining whether to produce, what to produce, how to produce, how much to produce and when to produce (Chopra, 2005). Preparation of work plans, specifications and budgets followed by initiation of a requisition by the user departments with the help of the PDU should be done after the Accounting Officer certifies availability of funds. Basheka (2008), notes that, there are various risks at every stage of public procurement, including risks of integrity, accountability, lack of adequate needs / requirement assessment, planning and budgeting of public procurement , requirements that are not adequately or objectively defined and a timeframe for preparation of the bids that is insufficient or not consistently applied across bidders.

2.3.2 Budgeting and project performance

Budgeting is part of planning (Lysons, 2000). According to PPDA Act, form PP20 is the starting point of the procurement process in the public sector, and this form, is one which confirms whether there are funds available for the particular procurement to take off. (Lysons 2000 b) defined a budget as a plan qualified in monetary terms, prepared and approved prior to a defined period of time. Some studies have proposed that the purposes of budgets may be interpreted differently not only across organizations, but also across organizational levels (Lukka, 1988, Ihantola, 2006) and by accountants and managers (Emmanuel et al., 1991, pp 161-2). Budgets are set to motive good performance, since people are sensitive to large goal –performance discrepancies and are motivated to decrease these by improving their performance (Emmanuel et al., 1991). In addition, Goold and Campbel (1987), Narajo-Gil and Hartman (2006), state that budgets can be used to communicate and implement strategic year plans. They also state that budgets can be turned into responsibilities and commitments, standards and benchmarks against which actual results can be compared for unit and managerial performance, evaluation and reward.

According to Flamholltz (1983), budgets are financial blueprints that quantify a firm's plans for a future period. Budgets require management to specify expected sales cash inflows and outflows, and costs; and they provide a mechanism for effective planning and control in organizations. The budget is a standard against which the actual performance can be compared and measured. To ensure effective financial management and to avoid uncertainty or waste of financial resources, budgets and budgeting become vital. Ifidon (1999) pointed out that a budget is a formalized way of preparing a statement of all accounts and an allocation of all available

financial resources. In other words, a budget can be described as a policy on which expenditures and income are based. Proponents of budgeting argue that budgets have several important roles. Blocher *et al.* (2002), for instance, argue that budgets help to allocate resources, coordinate operations and provide a means for performance Measurement. Hilton et al. (2002) agree with this view and claim that the budget is the most widely used technique for planning and control purposes. Clarke and Toal (1999) too, are of the opinion that budgets are still essential and can, for example, be incorporated as part of the financial component of the balanced scorecard.

Meanwhile critics of budgets claim that budgets are bad for business, are no longer adequate and are "fundamentally flawed" as planning and control mechanism in today's complex and highly uncertain business environment (McNally, 2002). Stewart (1990) claims that experts criticize budgets as being ineffective. According to him, "Budgets, says experts, control the wrong things, like headcount, and miss the right ones, such as quality, customer service and even profits". Traditionally, budgeting is considered to be one of the most important management tools to steer the organization, evaluate its performance and motivate its people. However, criticism of the budgeting process has increased considerably in the past decade. This has led to an alternative to budgeting known as "Beyond budgeting". There are many possibilities, on the scale of traditional budgeting to beyond budgeting, to modernize the budgeting process. Beyond – budgeting deserves serious consideration because it enables an organization to look with a fresh view at its budgeting process, other planning processes, and organizational structure (Fraser and de Waal, 2001). Where budgets are used to measure performance, the managers who set these budgets may be tempted to build in some element of spare resources that allow a lapse from actual high levels of performance without deviating from budget targets. This involves

overestimating the time required for any particular task or using the highest price of input materials available in the price list.

In conclusion, feedback on the budget outcomes is critical as an indicator of success or failure and therefore works as a catalyst for higher performance as stated by (Henderson, 1997). This can be in relation to the MSI project were the sole responsibility of budget management and control lies in the hand of the Head of the Finance department at UNCST and principal scientists.

2.4 Solicitation of bids and Project Performance

Solicitation aims at collecting and analyzing information about capabilities within the market to satisfy the organization's requirements, such as obtaining reliable cost information, determining the appropriate technology and alternative products, as well as identifying appropriate supplier qualification criteria as stated by the Inter Agency Procurement Work Group (IAPWG) (2011). Regardless of the method used, supplier selection criteria formulation affects several activities including inventory management, service delivery, quality planning and control and cash flow requirement.

According to Telgen et al. (2005), Monezka et al. (2005), solicitation entails determining the sourcing strategy and no single sourcing strategy approach will satisfy the requirements of all purchases. Because of this, the procurement strategy adopted for a particular item or service will influence the approach taken during the supplier evaluation and selection process.

Whereas the Monezka et al. (2005) model acknowledges multiple sourcing, it glosses over the discourse of using the combination of multiple sourcing with multiple lots as a tool in public

purchasing strategy. Linthorst et al. (2006), state that when used appropriately, the combination of multiple sourcing with multiple lots can provide an incentive to improving service delivery.

Jackson (2002) suggests that the main tasks in solicitation are compiling the request for proposals or tender documents and conducting the evaluation. He notes that the evaluation criteria in the request for proposals or tender documents could be drafted to favour a particular supplier or service provider to emphasize weakness of a particular competitor. During solicitation, Jackson suggests that it is possible that advance information could be provided to particular favoured or simply mis-addressing tender documents, accepting late proposals or rejecting legitimate proposals to corrupt the procurement process. These are likely to affect the performance of the projects.

2.4.1 Bid Preparation and project performance

Aissaoui et al. (2007) observe that, decision makers are faced with different procurement situations that lead to different decisions. Consequently, in order to make the right choice of service provider, the procurement process should start with finding out exactly what they want to achieve by selecting a supplier. According to the PPDA User Guide (2013), the Procurement and Disposal Unit is responsible for the preparation and issue of the Bidding Document and must use the appropriate standard document issued by the PPDA, as this is a mandatory requirement. In deciding the deadline for submission of bids, the PDE should allow Bidders sufficient time for studying the Bidding Document, preparing a responsive bid and submitting the bid. PDEs are required to comply with the minimum bidding periods given in the Regulations. The Bidding Document must be issued to all shortlisted bidders at the same time and must be issued early

enough to ensure compliance with the minimum bidding period given in the Regulations. A record must be kept of the issue of documents.

2.4.2 Bid Evaluation and project performance

IAPWG (2006) suggests that, the main purpose of bid evaluation is to determine the best responsive bid, in accordance with the evaluation and selection methodology specified in the solicitation document, among the bids submitted before the bid closing time on the date specified in the bid solicitation. The responsive bid offering the best value to an institution or company may or may not necessarily be the one with the lowest price. In order to accurately determine best value, a logical systematic evaluation procedure covering all aspects of the evaluation process must be followed. Before starting the actual technical and financial evaluation of bids, it is necessary to ensure that all the information required at bid closing is available and ready to be transmitted to the evaluators.

PPDA Act (2003) states that it is the responsibility of PDU is to determine whether the bids received are complete, as specified in the bid solicitation, before further detailed evaluation of the bids. Panayiotou et al. (2004), urge that compared to open invitations, a limited number of invited bidders can decrease project duration due to shortened bidding stage. It also increases the chance for lasting relationships and a continuous workload for the selected contractors, which facilitate cooperation and client satisfaction through increased knowledge about the client's demands Bresnen and Marshall (2000), Eriksson (2007), however suggest that for economic performance, while an open bid is likely to result in a lower bid, a closed bid may be better in terms of avoiding cost overruns as there is less reason for underestimating costs for bidders in this situation.

Tanaka and Hayashi (2011) on the other hand, note that the implementation of efficient Public Procurement procedures is challenged by bid rigging, which involves collusion among bidders or between a bidder and a corrupt public officer. They advise that, the awarding committee, usually a commission of experts selected by the public authority must follow prescribed procedures and maintain transparency in public tenders in order to prevent these situations.

In conclusion therefore , in order for any project to realized it objectives , it was proposed by (Eriksson, et al, 2009), that for services and works, the fewer the number of contractors' bids invited, the better in time performance, the better the quality and the better the collaboration. It is also recommended that the PDU creates and uses a check list of all requirements, which can be used throughout the evaluation of each bid. Evaluation of bids must be in accordance with the procedures stipulated in the bid solicitation. They must be checked for responsiveness to the contractual, technical and financial requirements of the bid solicitation. Fair, accurate and transparent evaluation of bids is an important aspect of procurement process which in the end will lead to good project performance.

2.5 Contract Management and Project Performance

The Chartered Institute of Purchasing & Supply (CIPS), (2005) defines contract management as the process of systematically and efficiently managing contract creation, execution and analysis for maximizing operational and financial performance and minimizing risks. IAPWG (2006), on the other hand states that contract management is commonly understood as a broader and more strategic concept that covers the whole procurement cycle including planning, formation, execution, administration and close out of a contract and goes beyond the day to day "administrative" activities in the procurement cycle. The purpose of contract management is to

ensure that all parties to the contract fully meet their respective obligations as efficiently and effectively as possible, delivering the business and operational outputs required from the contract and providing value for money. It also protects the rights of the parties and ensures required performance when circumstances change.

In the process of ensuring that contract management successfully takes the right course, all the parties involved must keenly pay attention to all provisions in the given or existing contract (Sanders, Locke, Moore, & Autry, 2007; Laratta (2009) and Saunders, 2000). Successful and efficient contract management practices are those that meet the needs of the company's stakeholders, achieve optimum conditions and value in regard to the allocation of scarce tax payers resources (best value for money), ensure rational and efficient of funds available, stimulate valuable competition and manage the risk and potential liabilities to the buyer thus improving service delivery.

Equally pertinent is need for trained personnel in contract management and procurement procedures. But this is not usually the case as supported by Nadiope (2005) who observes that the government lacks trained procurement personnel. In Uganda the need for training personnel particularly to contract management can only be established after what is known about the same has been established. Public Procurement Authorities must continuously formulate and implement strategies to address the existing capacity gaps within PDEs especially in the area of contract award and management. This is evidenced by the PPDA Capacity Building Report (2010) which noted that some PDEs had serious constraints in execution and monitoring of contracts. In an effort to attain these demands, organizations constantly look for employees who have skills necessary to deal with the wide variety of tasks (Monczka et al., 1998; Sauber et al.,

2008). Notwithstanding the above, Lan, Riley and Cayer (2005) posit that finding, hiring and retaining dedicated, energetic, and ethical employees with special skills is always hard. The supervisors (contract managers) should be knowledgeable in contract management. Organisations must, therefore, assign experienced staff to supervise the consultant and contractors. This should be accompanied by proper record keeping. The public procurement regulatory framework dictates that contracts must be drawn carefully involving all stakeholders for completeness to avoid as unnecessary deviations. Therefore, key responsibility centres, as they relate to different procurement processes must be established. Minahan (2007) observes that it is possible to design contracts that are robust enough to profitably continue operations in the face of expected deviations and unexpected disruptions and quickly recover from disasters.

2.5.1 Relationship Management and project performance

Over a period of time, a buyer may conduct a number of transactions with the same supplier. The number of prior transactions with a supplier has been used as a proxy for trust. If a buyer experiences difficulty with a supplier, he/she typically will not do business with the supplier in the future, unless the supplier is the only option for the buyer (Gulati, 1995). This is supported by CIPS (2005), that states that contractual arrangements may commit the organization to its supplier(s) for sometime and to varying degrees of dependency. It is therefore, important to make the relationship work effectively by developing mutual trust and understanding, creating an open and constructive environment and contributing to the joint management of the contract delivery. It is primarily through the development of mutual trust and confidence that the other elements for success are created. As the supplier gains greater understanding of the organisation's business needs and style and develops a level of confidence and trust, it will be more willing to be

proactive and innovative in bringing forward improvements and savings to mutual benefit, more willing to share problems, plans and concerns, more willing to negotiate and more confident in investing for the longer term.

In many cases these relationships are characterized by traditional transaction practices including arm's length contracting, low information exchange, and standard bidding procedures on an order-by-order basis. The study of supplier-customer relationships has shifted from a focus on the organizational traits associated with relationships to a focus in which personal trust between the parties has been acknowledged as an important ingredient (Ganesan, 1994; Handy 1995; Heide and Miner 1992; Kumar et al., 1995). Both forms were found to enhance coordination by lowering administrative costs. Coordination is related to trust through boundary definition, and reflects the set of tasks each party expects the other to perform (Mohr and Spekman 1994). Trust has also emerged as an important component of supplier/manufacturer relational exchange norms (Young, Gilbert, and McIntyre 1993), and firms are beginning to acknowledge the importance of trust and coordination in cooperative relationships (Pilling and Zhang, 1992). Gulati (1995) found that suppliers and customers are less likely to use equity sharing agreements as they gain more experience with each other through ongoing relationships. Moreover, greater familiarity between the parties bred trust, which replaced legal relationships. The underlying theme of these studies is that trust develops when tangible benefits appear to both parties from the business relationship.

Coviello et al. (2002) however defer from the above by saying that, the organization benefits by gaining a greater understanding of the strengths and weaknesses of the supplier, enabling it to concentrate its management and development support in those areas. Interestingly, even as firms

increase the length of their agreements, research has concluded that many supplier/customer relationships are still characterized by a lack of trust thus; opportunistic behavior by one party can lead to a lack of trust by the other party (Stump and Heide, 1996). McAllister (1995) concluded that trust occurs in cognitive and affect-based forms. The former has its roots in reliable role performance, cultural-ethnic similarity, and professional credentials, while the latter is a function of individual behavior and interaction frequency.

2.5.2 Performance Monitoring and project performance

Procurement managers and stakeholders in the Public Service serve institutions created and governed by a complex array of statutes, regulations, policies, and directives. They operate in an environment of increasingly intense scrutiny and accelerated changes driven by technology, program reviews, and public and political expectations for service improvements. These combined result into growing institutional complexity and risks. However, Ntayi (2009) observes that millions of dollars gets wasted due to inefficient and ineffective procurement structures, policies and procedures as well as failure to impose sanctions for violation of procurement rules thus resulting in poor service delivery.

Once a contract has been awarded, the responsible procurement officer, monitors performance, collects information, and measures actual contract achievement. This is essential for effective control. The resources devoted to these tasks, and the techniques used to perform them, will depend on the nature of the contract work, the size and complexity of the contract, and the resources available. IAPWG (2006) suggests that for small, simple, non-critical contracts, an occasional telephone call may be all that is needed to satisfy the responsible the contracting organization that everything is proceeding according to plan. However, for large, complex

contracts, the PDU may require extensive reports, regular progress meetings, formal testing, and technical reviews and audits. In performance based contracts, performance indicators developed in the contract are used. In some cases, the proposed supplier's quality assurance plan may be used as a basis for monitoring the supplier's performance.

Observations are made in order to collect information related to those aspects of performance that, when measured, will describe the progress of the work. The reason for observing, collecting information, and measuring progress is to have a basis for comparing actual achievement with planned achievement in order to exert control. Each party must direct its attention internally to ensure that it is fulfilling its own obligations, and externally to ensure that the other party is fulfilling its obligations.

In conclusion, the stages of contract management are intended to ensure that the parties work together to achieve the objectives of the contract. Contract management is based on the idea that the contract is an agreement, a partnership with rights and obligations that must be met by both sides to achieve the goal. Contract management is aimed not at finding fault, but rather at identifying problems and finding solutions together with all contracting parties involved.

2.6 Summary of the Literature Review

From the above reviewed literature, many scholars and academicians have shown that the Scientific Management theory relates significantly to performance of an individual or organization. It emphasized the importance of procurement planning which entails identification and analysis of procurement requirements and budgeting; solicitation of bids , which involves bid preparation and bid evaluation and contract management which involves relationship

management and performance monitoring. Despite the detailed and exhaustive work provided in the literature, there are still serious concerns in that much of the literature does not provide clear cut guidelines and criteria regarding procurement planning, solicitation of bids and contract management, especially in developing countries like Uganda where much of the budgetary funds end up being utilized on other activities rather than those planned by the organizations. Much of the information is generalized and does not address internal specific factors like staff recruitment, enforcement of strict rules and regulations on solicitation of bids and contract management, which were found to be affecting procurement management of the MSI Project. It is expected that the findings of this study will support the various authors and researchers in literature review and the findings of this study will be utilized by policy makers and academia that is related to this study.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a brief description of the process of research for the study. The chapter contains research design, study population, sample size, selection and sampling techniques, data collection methods and instruments, pre-testing techniques, procedure of data collection, data analysis and measurement of variables.

3.2 Research Design

This study used a cross- sectional descriptive study design to have complete enumeration and gather data from sampled population as stated by Amin (2005). The study based on a triangulation approach whereby both qualitative and quantitative techniques were used to analyze the data in order to reach logical conclusion of the findings. The quantitative technique provided detailed numerical analysis of the research problem and investigated the relationship between the research variables, while the qualitative approach collected real life information that includes carrying out interviews, observation and documentary analysis (Amin, 2005).

3.3 Study Population

The study population included staff at UNCST, UIRI, Technical Committee, the Principal Scientists, and students supported by the MSI projects. A target population of 129 respondents, composed of; (44) UNCST staff, (15) UIRI staff, (39) Principal Researchers of the MSI project, (24) Masters and PhD

students who benefited from the project and (7) MSI -Technical Committee members was involved. (UNCST, UIRI Human Resource Register and MSI Project Evaluation Report, 2012).

3.4 Determination of Sample Size

A representative sample size of respondents from selected respondents was determined by using the table provided by Krejcie and Morgan, (1970). A sample size of 108 was selected from a population of 129 as shown in Table 1 below;

Table 1: Table for determining sample size techniques to be used for population samples

Category	**Population Target**	**Sample Size**	**Selection Technique**
Principal scientists	39	32	Purposive sampling
Students	24	19	Simple random sampling
UNCST staff	44	36	Purposive sampling
UIRI staff	15	14	Purposive sampling
Technical Committee	7	7	Census
Total	**129**	**108**	

Source: UNCST, UIRI Human Resource Register and MSI Project Evaluation Report, 2012.

3.5 Sampling Techniques Procedure

The study used purposive sampling technique for Principal scientists, UNCST staff and UIRI staff. Purposive sampling is a technique that is used to collect focused information, in which the researcher decides who to include in the sample based on their typicality (Oso and Onen, 2009). The researcher used this method because it ensured that only the useful respondents were selected and it also saves time. Simple random sampling was used for the students because the selected population represented the entire population. The researcher considered all the members of the Technical Committee.

3.6 Data Collection Methods

Primary data was collected using self-administered questionnaires in the field while secondary data was collected from available published records such as texts books, journals, magazines, internet among others. The data collected was both quantitative and qualitative in nature.

3.7 Data Collection Instruments

Basically, three research instruments were used in conducting the study. The instruments were questionnaires, interview guide and documentary review. The questionnaire was the main instrument and the interview guide helped to gain an in depth understanding of the subject and the interface with the respondents provided a platform for probing deeper into the subject matter. Documentary review was intended to obtain a framework for interpretation of the findings in order to arrive at realistic conclusions and recommendations.

3.7.1 Questionnaires

An emailed questionnaire to respondents was sent to obtain primary data. This made it more convenient and easier to collect data sought from respondents with busy schedules as they would answer the questions at leisure while consulting documents, the instrument also ensured high response rate and elicited the required information on a wide range of issues on the effects of procurement management on performance of projects. Closed ended questions using likert scales were used, which enhanced simplicity for straight forward questions. Open ended questions on the other hand intended to permit a greater depth of response on specialized issues of the interview.

3.7.2 Interview Guides

An Interview method was used to secure the depth of information from the interviewees by the researcher. A probe with additional questions and gathering supplement information enabled the researcher to cross check the accuracy of the data collected as recommended by Sekaran (2004). The interviews were conducted for about 5 minutes on average among the MSI beneficiaries. They were mainly conducted using the face to face techniques but where respondents were busy, the researcher used telephone calls to obtain clarity on certain issues.

3.7.3 Documentary Check list

The study conducted a wide documentary review to help the researcher avoid unnecessary and unintentional duplication of studies and provide a framework within which the research findings were to be interpreted as stated by (Mugenda and Mugenda, 2003). Data gathered using this method was basically secondary from critical examination of public and private recorded information related to the issue under investigation. Documentary evidence method was used to get dependable data as it is

permanent and reliable information. The researcher reviewed reports on the MSI project, minutes of meetings held with beneficiaries of MSI project, procurement work plans, and newspaper articles from the UNCST library together with other relevant written material on the study.

3.8 Data Quality Control

These were the steps and measures taken to ensure that the instruments used were good and clear enough to give the right findings of the study. To control the quality of the data, the researcher carried out validity and reliability tests of the instrument as reflected below:

3.8.1 Validity

According to Amin (2005), validity of an instrument is when it measures what it is supposed to measure; that the data is collected honestly and accurately represents the respondents' opinions. The internal validity of the instrument was measured based on Alpha Cronbach test and a score above 0.70 was accepted. The validity of the questionnaire was determined by pretesting the questions on a group of ten UNCST staff who have expertise in the field of research and were required to fill the questionnaires and comment on the clarity of the questions. They generally found the content of the questionnaire sufficient. Structured interviews were used to overcome biasness and the researcher pledged confidentiality of the information given by respondents. Content Validity was calculated using the formula below:

$$\text{Content Validity Index} = \{\frac{\text{Number of items declared valid by evaluators}}{\text{Total number of items}}\}$$

3.8.1.1 Questionnaire

The questionnaire had a total of 24 questions and was given to 10 UNCST staff. Below are the ratings

Out of the 10 UNCST staff, 3 selected 20 questions as relevant and 4 as irrelevant

Out of the 10 UNCST staff, 7 selected 22 questions as relevant and 2 as irrelevant

Therefore the CVI was calculated as below:

CVI = (20+22) /2= 44/2 = 22, implying that 22/24= 0.9

CVI= **0.9**

According to Amin (2005), CVI of 0.7 means that the instrument will collect valid data. Therefore, CVI of 0.9 , is good enough to indicate that the questionnaire collected valid data for the study.

3.8.1.2 Interview Guide

The Interview Guide had 7 questions and was given to 10 UNCST staff. Below are the ratings

1. Out of the 10 UNCST staff, 4 selected 6 questions as relevant and 1 as irrelevant
2. Out of the 10 UNCST staff, 6 selected 7 questions as relevant

Therefore the CVI was calculated as below:

CVI = (6+7) /2= 13/2 = 6.5, implying that 6.5/7= 0.9

CVI= **0.9**

According to Amin (2005), CVI of 0.7 means that the instrument will collect valid data. Therefore, CVI of 0.9 is good enough to indicate that the Interview Guide collected valid data for the study.

3.8.2 Reliability

Reliability is the measure of the degree to which a research instrument yields consistent results if administered at different occasions. According to Amin (2005), reliability is dependability, trustworthiness or the degree to which an instrument yields consistent results after repeated trials. The researcher administered the questionnaire to only target groups and used selective data which was only relevant to the research objectives to minimize the errors and increase its reliability. A pretest was done whereby the research instrument to be used was tested with ten respondents from UNCST in order to find out its accuracy and relevance to the research topic.

Using Cronbach's Alpha (1951), as a measure of reliability of the variables the following model was utilized;

$$\propto = \frac{K}{K-1}\left[1 - \frac{\sum \sigma^2 k}{\sigma^2}\right]$$

Where;

α = Reliability, Alpha Coefficient (Cronbach)

K = Number of items in the instrument

$\sum \sigma^2 k$ = Variance of individual items

σ^2 = Variance of the total instrument

Table 2: Reliability statistics for the variables

Study variables	**Reliability index**
Procurement Planning	0.756
Solicitation of bids	0.850
Contract management	0.862
Overall reliability	**0.908**

Table 2 above shows that the study results are very reliable as per the findings. Note that a reliability coefficient of 0.70 or higher is considered "acceptable" in most social science research situations. The Alpha value for the procurement planning variable was 0.756, solicitation of bids was 0.850 and contract management 0.862. The overall reliability result shows that the Cronbach Alpha for all the study variables was 0.908. These statistics reveal that the internal consistency of items in the questionnaire is good and reliable.

3.9 Data Collection Procedures

After obtaining an introductory letter from the School of Management Science – UMI, the researcher sought permission from the relevant respondents / beneficiaries of the MSI project to start the data collection by emailing and physically delivering questionnaires. Follow ups to respondents were made after the agreed time period to find out if the researcher could collect the questionnaires. Interviews were conducted to verify data provided in the questionnaires. For procedures of obtaining secondary data, enquires were made about access and availability of the information. A critical analysis of documents was made to squeeze out the required data.

3.10 Measurements of Variables

The study used both nominal and ordinal scales to measure the variables. The nominal scale of measurement was mainly used to measure demographic data which comprised of items with the same set of characteristics such as education levels, institutions from which beneficiaries of the MSI project belonged to and their gender. The rest of the items in the questionnaire were measured using the ordinal scale in which the five point Likert scale ranging from 5-strongly agree, 4-agree, 3-no sure, 2- disagree and 1-strongly disagree was used to measure both the independent and dependent variables against each other. The independent variables were elements of procurement management which included procurement planning, solicitation of bids and contract management, while the dependent variable was the performance of the MSI project. Mugenda and Mugenda (2003) guides that nominal scales are assigned only for purposes of identification but not allow for comparison of variables being measured. The ordinal scale does not only categorize the elements but also ranks them into some order. The analysis of the nominal and ordinal scores involved weighting and averaging of the response categories for all the items in accordance with aid of SPSS computer software.

3.10.1 Data Analysis

Data collected was edited, coded and later analyzed using Statistical Package for Social Scientists (SPSS) version 17 computer programme. Quantitative data was analyzed using tables, correlation analysis to show the relationships and regression analysis to show the influence of performance audits and governance. Pearson's correlation coefficients (r) and significance (p) were used to identify the significance levels to test the hypotheses at the 99 and 95 confidence levels in the correlation analysis. This involved running a bivariate correlation analysis using Pearson's correlation analysis allowing it to find any significant relationship at 2-tailed. The adjusted R^2, t value beta and significance values was

used to measure the influence of the independent variables on the dependent variable in the regressions analysis.

3.10.2 Qualitative Data Analysis

According to Mugenda and Mugenda (2003), qualitative research is an umbrella form for various types of interpretive modes of inquiry. Qualitative data got from the interviews and documentary review was coded and presented in a descriptive form and conclusions were made on the basis of the narrations in the descriptions. This was done because the researcher was interested in analyzing information in a systematic way, establish patterns, trends from the information gathered then draw useful conclusions and recommendations as suggested by (Oso and Onen, 2009). The analyzed data was presented in tabular form to give a clear interpretation of events.

3.10.3 Quantitative Data Analysis

Quantitative data was analyzed in a systematic way in order to come to useful conclusions and recommendations. This was through establishing patterns, trends and relationships from gathered data as recommended by (Mugenda and Mugenda, 2003). Data that was gathered through quantitative means was edited carefully and meticulously to ensure that it was accurate, consistent and well arranged to facilitate entry into the computer. The data was then analyzed by aid of a computer programme known as Statistical Package for Social Scientists (SPSS) version 17. After descriptive analysis relational and correlation analyses were carried out in order to establish the magnitude and direction of relationships between the primary variables. The inferential analysis was done to draw interfaces about the population based on the data collected. This was done using techniques such as

correlation analysis, regression analysis and analysis of variance (ANOVA). Each of the techniques is described in the following paragraphs.

The **Correlation Coefficient** (r) technique was used to determine the strength of the relationships between two variables (Mugenda and Mugeneda, 2003). The correlation coefficient ranges between -1 and + 1, the two extreme values signify perfect negative correlation and perfect positive correlation respectively. The significance of the correlation coefficient is that (1) it gives the indication of the magnitude of relationships between two variables; (ii) it shows the direction of the relationship two variables; a positive (+) correlation implies that there is a positive relationship , while a negative (-) correlation implies that here is a negative relationship. In a positive correlation, one variable increases and the other also increases. On the other hand, in a negative correlation, as one variable increases the other decreases as stated by (Mugenda and Mugenda, 2003).

The **Regression coefficient** (R) was used to determine the linear relationship between variables. This was then squared and adjusted to determine how much variance in the dependent variables was caused by the independent variables. The coefficients of the regression used to determine which of the independent variables significantly influences the dependent variables. The relationship between the independent variable was established through determination of the coefficient of determination (R^2, or R Square) and the *F-statistic* obtained through analysis of variance or ANOVA, which is also known as F-test (Sarantakos, 2005). The coefficient of determination (R^2) refers to the amount of variation in the dependent variable that is explained by the independent variable. The F- statistics tell the researcher whether one or more of the independent variables significantly predicts the dependent variable at the selected probability level (Mugenda and Mugeneda, 2003). Regression also yields valuable coefficients such as the *t-value* and *beta coefficients* that define significant predictors of the dependent variable.

CHAPTER FOUR
PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents analyses and interprets the study findings on the effect of procurement management on project performance: a case of the Uganda Millennium Science Initiative project. The results of the study are logically presented to answer the study objectives. The responses are presented in form of frequencies and percentages in tabular form. The hypothesis for each objective are treated and tested separately for correlation, linear regression and significance.

4.2 Response rate

According to Saunders, Lewis and Thornhill (2000), the most important aspect of a probability sample is that, it represents the population and a perfect representative sample is one that exactly represents the population from which it was taken. However in any study, there will always be non- respondents for at least four reasons; refusal to respond, ineligibility to respond, inability to locate respondents and respondents located but unable to make contact. Therefore, as part of a process of reporting results, a researcher should be able to explain the active response rate which the researcher differentiates from the total response rate. Thus out of the targeted sample of 108 respondents, 57 responses were obtained constituting a response rate of 53% which is internationally acceptable (Mugenda and Mugenda, 2003).

4.3 Background characteristics of respondents

In order to understand the data characteristics and ensure that our sample covered the different dimensions of the study, the researcher explored the background information of the respondents. The

data collected comprised of the gender classification, highest qualification of respondents, nature of their institutions and the category they belonged to during Implementation of the MSI project. The results about the background of the respondents are presented in Tables 2, 3, 4 and 5 using descriptive statistics which were mainly frequencies and percentages.

4.3.1 Gender of respondents

The MSI project beneficiaries were asked about their gender. The results shown in Table 2 below indicate that out of the total number of 57 respondents, 62% were male while 26% were female. The remaining 12% of the respondents did not indicate their gender.

Table 3: Gender of respondents

Gender	**Frequency**	**Percentage**
Male	35	61.5
Female	15	26.3
Missing Value	7	12.2
Total	**57**	**100**

Source: Primary data

These results provide an insight into the level of female participation in research and scientific projects in Uganda. This is however, not exclusive to Uganda alone, as the world over, women participation in such projects is very low (UNCST Research & Development Report, 2012).

4.3.2 Highest qualification of respondents

The MSI project was mainly research oriented and therefore comprised of very highly qualified personnel who held PhDs/DSc, Masters, Bachelor's degrees, Diplomas and Certificates. Table 3 below shows that 37 percent of the respondents held PhD/ DScs, 40 percent MSc/ MA, 12 percent BSc/BA and only 2 percent had professional qualifications such as laboratory certification, ACCA, CPA, diplomas, among others. Another 2 percent of the respondents held certificates. With these qualifications, the beneficiaries of the MSI project could easily comprehend the questions that were asked, hence provided reliable information.

Table 4: Highest qualification of respondents

Qualification	**Frequency**	**Percentage**	**Cumulative Percentage**
PhD/ DSc	21	36.8	36.8
MSc/ MA	23	40.4	77.2
BSc/ BA	7	12.3	89.5
Professional Qualification	1	1.8	91.2
Others	1	1.8	93.0
Missing value	4	7.0	100.0
Total	**57**	**100.0**	

Source: Primary data

4.3.3 Nature of institutions where projects were located

The Millennium Science Initiative project provided grants to individuals who were attached to different categories of institutions and whose linkages stretched across the public sector, academia and private sector.

Table 5: Nature of Institution where projects were located

Institution	Frequency	Percentage	Cumulative Percentage
University	19	33.3	33.3
Research Centre	6	10.5	43.9
Private Enterprise	2	3.5	47.4
Public Institution	25	43.9	91.2
NGO	1	1.8	93.0
Missing value	4	7.0	100.0
Total	**57**	**100.0**	

Source: Primary data

The results in table 4 above indicate that 33 percent of the respondents were from the university, 11 percent from research centres, 4 percent from private enterprises, 44 percent from public institutions, and 2 percent from the NGOs. Public institutions had the largest representation since the majority of research institutions such as agriculture and health were from the public sector. Within the universities, new programs were introduced; masters and bachelors students were trained and well as laboratories upgraded. Although there was collaboration with the private sector, the majority of these projects were

concentrated within the universities and public institutions apart from those under window C of the project.

4.3.4 Category of beneficiaries during the implementation of the MSI project

The MSI project was designed to have principal scientists as the lead investigators for the associated project grants, the Technical Committee as the overseer of overall project design, implementation and evaluation, UNCST as the overall project coordinators, and UIRI as the link between the private and public sectors with regard to industrial development. Students were either trained within the new programmes introduced within the universities (undergraduates), part of a research grant (Masters and PhD) or interns within the industrial/ private sector.

Table 6: Category during MSI project

Category	Frequency	Percentage	Cumulative Percentage
Principal Scientist	21	36.8	36.8
Student	6	10.5	47.4
UNCST Staff	21	36.8	84.2
UIRI Staff	2	3.5	87.7
Technical Committee	3	5.3	93.0
Missing value	4	7.0	100.0
Total	57	100.0	

Source: Primary data

Table 5 above indicates that 37 percent of the respondents were principal scientists, 11 percent students, 37 percent UNCST staff, 4 percent UIRI staff and 5 percent were from the Technical Committee. It should also be noted that 7 percent of the respondents did not indicate the role they played within the MSI project.

4.4 Empirical Findings

The study sought to assess the effect of the procurement management process on overall project performance. The following objectives were identified in chapter 1 as the avenue through which project performance would be measured: (a) determine the effect of procurement planning on the performance of the MSI project; (b) establish the effect of solicitation of bids on the performance of the MSI project; (c) establish the effect of contract management on the performance of the MSI project. Using the methodology outlined in chapter 3, tabulations, correlation, regressions, and Anova computations were made to assess the impact of project management on project performance. The results have been presented as the aforementioned objectives.

4.5 Procurement planning and project performance

The first study objective examined the effect of procurement planning on project performance. The procurement planning process involves identifying the users, their needs and specifications, developing a procurement schedule and linking it to the approved budget, costing the plan, extending support to the user departments, among others. The effective execution of these stages positively impacts on project performance. The following variables were identified from the planning process as the key ingredients to the determination of the effective performance of projects, namely; involvement of project personnel in defining their own procurement needs, agreement on the procurement plan by all parties, approval of

project budgets prior to project commencement, plans costed as per the approved budgets, provision of training and counseling to procuring entities, submission of procurements on time and consistent with the plan, provision of realistic timelines for delivery of project equipment, and agreement on quality standards.

4.5.1 Mean and Standard deviation for procurement planning

Procurement planning was measured using eight (08) items scored on a five point Likert scale of (5) = strongly agree (4) = agree (3) = not sure (2) = disagree (1) strongly disagree and the findings are displayed in table 6 below.

Table 7: Mean and Standard deviation results for procurement planning

Procurement Planning			
	Procurement planning variables	**Mean**	**S.D***
1	Personnel involved in defining procurement needs	4.61	0.921
2	Procurement plan agreed upon by all parties	3.93	1.163
3	Project budgets approved prior to project commencement	4.54	0.629
4	Plan costed as per approved MSI project budget	3.98	0.855
5	Training and Counselling provided to procuring entities	3.72	1.278
6	Procurements submitted on time and consistent with plan	2.49	1.338
7	Realistic timelines for delivery of project equipment	2.72	1.176
8	Quality standards were agreed upon by users and PDU	4.05	0.915

*Refers to Standard Deviation

The findings in table 6 above indicate that the personnel on the MSI projects were involved in defining their own procurement needs and specifications to ensure effective procurement and project performance (Mean = 4.61, Standard deviation = 0.921). The results also show that the procurement plan was agreed upon by all parties (Mean = 3,93, Standard deviation = 1.163), project budgets were approved prior to project commencement (Mean =4.54, Standard deviation = 0.629), the plan was costed as per the approved budget (Mean = 3.98, Standard deviation = 0.855), training and counselling was provided to project personnel(Mean = 3.72, Standard deviation = 1.278) and that the quality standards were agreed upon by users and the procurement department (Mean = 4.05, Standard deviation = 0.915). These variables have mean values that are skewed to the right.

4.5.2 Correlation coefficient of procurement planning and project performance

Results from the Pearson correlation analysis to examine the magnitude of the relationship between procurement planning and project performance revealed a positive and significant relationship ($r = 0.473$, $N = 57$, $p = .021$). The correlation was moderate in strength. This implies that higher levels of project success were associated with better procurement planning. We can therefore conclude that procurement planning positively affects project performance. See table 7 below.

Table 8: Correlations between procurement planning and project performance

		Was your project successful	Procurement planning
Was your project successful	Pearson Correlation	1	.473**
	Sig. (2-tailed)		.021
	N	57	57
Procurement planning	Pearson Correlation	.473**	1
	Sig. (2-tailed)	.021	
	N	57	57
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary data

4.5.3 Regression analysis of procurement planning and project performance

To assess the significance of our conclusions on the findings, we test for the goodness of fit in our model on procurement planning. The results in table 8 below indicate that our $R^2 = 0.224$ implying that 22% of the variations in project performance are determined by procurement planning. We therefore, reject the null hypothesis and accept the alternative hypothesis which states that procurement planning affects project performance.

Table 9: Regression Model Summary for procurement planning and project performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473[a]	.224	.148	2.973
a. Predictors: (Constant), Procurement planning process improved project performance, Plan costed as per approved MSI project budget, Personnel involved in defining procurement needs, Procurements submitted on time and consistent with plan, Realistic timelines for delivery of project equipment				

4.5.4 ANOVA for the relationship between procurement planning and performance of projects

Table 9 below assesses whether the proportion of variance explained in table 8 above is significant. It also tells us whether the overall effect of the independent variables on project performance is significant. Our hypothesis is given as: H_0: there is no relationship between project success and procurement planning. H_1: there is a relationship between project success and procurement planning. Given a p-value of 0.021 which is below the 0.05 level; we reject the null hypothesis and conclude that the overall model is statistically significant, and that the variables have a significant combined effect on the dependent variable. In other words, procurement planning significantly affects the overall project performance.

Table 10: ANOVA[b] coefficients for procurement planning and project performance

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	130.126	5	26.025	2.945	.021[a]
	Residual	450.751	51	8.838		
	Total	580.877	56			
a. Predictors: (Constant), Procurement planning process improved project performance, Plan costed as per approved MSI project budget, Personnel involved in defining procurement needs, Procurements submitted on time and consistent with plan, Realistic timelines for delivery of project equipment						
b. Dependent Variable: Was your project successful						

4.6 Solicitation of bids and project performance

Maintaining integrity in Public Procurement is one of the most important pillars of national procurement systems (Arrowsmith, Linarelli & Wallace, 2000); and the public requires that government business be conducted in a manner guaranteeing that expenditures are made in an economically rational way (Soudry, 2007). This objective aimed to establish the relationship between solicitation of bids and performance of projects. The solicitation process involves requesting for bids, proposals or quotations (offers) from suppliers for goods, works or services required. The preparation and development of solicitation documents is considered as one of the most important and susceptible phases of the procurement management process in which to ensure fairness, integrity, and transparency. Therefore, the effective execution of this stage is likely to positively impact on project performance.

4.6.1 Mean and Standard deviation of Solicitation of bids

Procurement solicitation and evaluation was measured using six (06) items scored on a five point Likert scale of (5) = strongly agree (4) = agree (3) = not sure (2) = disagree (1) strongly disagree and the findings are displayed in table 10 below.

Table 11: Mean and Standard deviation results for solicitation of bids

Solicitation of bids			
Solicitation of bids and evaluation variables		**Mean**	**S.D**
1	UNCST maintains a list of competitively prequalified service providers	3.70	1.034
2	Procurements advertised in two forms of media	4.26	1.232
3	Personnel participated in drafting evaluation criteria	3.89	1.448
4	An evaluation panel with proper technical skills was constituted	3.81	1.407
5	Evaluation process followed the procurement ethical code of conduct	4.25	1.199
6	Solicitation and evaluation process improved project performance	3.44	1.593

The findings in table 10 above indicate that procurements were advertised in at least two forms of media to ensure competitive bidding (Mean = 4.26, Standard deviation = 1.232). The respondents also indicated that the evaluation process followed the procurement ethical code of conduct (Mean = 4.25, Standard deviation = 1.199), personnel were also involved in drafting evaluation criteria for bids to

ensure quality of procurements (Mean =3.89, Standard deviation = 1.448), UNCST maintains a list of competitively prequalified service providers (Mean = 3.70, Standard deviation = 1.034), an evaluation panel with proper technical skills was constituted (Mean = 3.81, Standard deviation = 1.407) and that overall, the solicitation and evaluation process improved project performance (Mean = 3.44, Standard deviation = 1.593).

4.6.2 Correlation coefficient of solicitation of bids and project performance

The researcher further assessed the linkages between the solicitation process and project performance using the Pearson correlation analysis. This was vital to examining the magnitude of the relationship between our dependent and independent variable. The results revealed an insignificant relationship ($r = 0.365$, $N = 57$, $p = .314$). The correlation was moderate, weak in strength and insignificant with $p > 0.05$. This implies that there was no significant relationship between procurement solicitation and project performance. See table 11 below;

Table 12: Correlations between solicitation of bids and project performance

		Was your project successful	**Solicitation of bids**
Was your project successful	Pearson Correlation	1	.314*
	Sig. (2-tailed)		.365
	N	57	57
Procurement solicitation and evaluation	Pearson Correlation	.314*	1
	Sig. (2-tailed)	.365	
	N	57	57
*. Correlation is significant at the 0.05 level (2-tailed).			

4.6.3 Regression analysis of solicitation of bids and project performance

To assess the significance of our conclusions on the findings, we test for the goodness of fit in our model on the procurement solicitation process. Our hypothesis was given as: H_0: there is no relationship between project success and procurement solicitation and evaluation. H_1: there is a relationship between project success and procurement solicitation and evaluation.

Table 13: Solicitation of bids Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.314[a]	.098	.010	3.204

a. Predictors: (Constant), Procurements advertised in two forms of media, UNCST maintains a list of competitively prequalified service providers, Personnel participated in drafting evaluation criteria, Evaluation process followed the procurement ethical code of conduct, Solicitation and evaluation process improved project performance

The results in table 12 above show that our $R^2 = 0.098$ implying that only approximately 10% of the variations in project performance are determined by the procurement solicitation and evaluation process. This confirms the results in table 11 on correlation which revealed no significant relationship between the dependent and independent variable. We therefore accept the null hypothesis and conclude that solicitation of bids has no effect on project performance.

4.6.4 ANOVA coefficients for Solicitation of bids and project performance

The ANOVA assesses whether the proportion of the variance explained in table 12 above is significant. It also tells us whether the overall effect of the independent variable on overall project performance is significant. Our hypothesis is; H_0: there is no relationship between project success and solicitation of bids. H_1: there is a relationship between project success and project solicitation. The sig. (or p-value) is 0.365 which is above the 0.05 level of significance; hence, we accept the null hypothesis and conclude that there no relationship between solicitation of bids and project performance.

Table 14: ANOVA coefficients for the relationship between Solicitation of bids and project performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.176	5	11.435	1.114	.365[a]
	Residual	523.701	51	10.269		
	Total	580.877	56			
a. Predictors: (Constant), Procurements advertised in two forms of media, UNCST maintains a list of competitively prequalified service providers, Personnel participated in drafting evaluation criteria, Evaluation process followed the procurement ethical code of conduct, Solicitation and evaluation process improved project performance						
b. Dependent Variable: Was your project successful						

4.7 Contract Management and project performance

Contract management involves ensuring contractual obligations are met, services are delivered efficiently and commercial risks are identified and managed. Detailed performance management regimes, a reasonable level of expected change, ongoing obligations on either party such as disaster recovery testing or benchmarking, performance slippage or disputes, require skilled contract management as part of overall planning.

4.7.1 Mean and Standard deviation for contract management

Contract management was measured using five (05) items scored on a five point Likert scale of (5) = strongly agree (4) = agree (3) = not sure (2) = disagree (1) strongly disagree and the findings are displayed in table 14 below:

Table 15: Mean and Standard deviation for contract management and project performance

Contract Management			
Contract management variables		**Mean**	**S.D**
1	Agreed quantity and quality delivered on time	3.00	2.018
2	PDU monitors and evaluates contracts to ensure timely delivery of goods and services	3.42	1.523
3	Principal scientists were satisfied with the equipment and works provided by suppliers	3.77	1.604
4	Delivered products reflected value for money	3.88	1.364
5	PDU monitored service providers and prepared reports	3.82	1.560

Source: Primary data

The findings in table 14 above indicate that the products delivered to MSI projects reflected value for money (Mean = 3.88, Standard deviation = 1.364). The respondents also indicated that the procurement unit monitored service providers and prepared reports on works /services done by contractors (Mean =

3.82, Standard deviation = 1.560), and that principal scientists were satisfied with the equipment and works provided by suppliers (Mean =3.77, Standard deviation = 1.604).

4.7.2 Correlation coefficient for contract management and project performance

The researcher further set out to examine the relationship between contract management and project performance using the Pearson correlation and a two tailed test. The results in table 15 below show that the correlation between the variables is statistically significant at 0.037 ($p < 0.05$) for a two tailed test. The Pearson correlation coefficient of 0.278 indicates a weak correlation but significant. This implies that there is a significant relationship between contract management and project performance**.**

Table 16: Correlations between contract management and project performance

		Contract management	**Was your project successful**
Contract management	Pearson Correlation	1	.278*
	Sig. (2-tailed)		.037
	N	57	57
Was your project successful	Pearson Correlation	.278*	1
	Sig. (2-tailed)	.037	
	N	57	57
*. Correlation is significant at the 0.05 level (2-tailed).			

4.7.3 Regression analysis for contract management and project performance

Table 16 below shows that our R^2 = 0.077 implying that only approximately 8% of the changes in project performance are determined by contract management. Our hypothesis was given as: H_0: there is no relationship between project success and contract management, H_1: there is a relationship between project success and contract management. We therefore, reject the null hypothesis and accept that contract management effects project performance.

Table 17: Model Summary for contract management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.278[a]	.077	.060	3.122

a. Predictors: (Constant), Agreed quantity and quality delivered on time, Principal scientists were satisfied with the equipment and works provided by suppliers, Delivered products reflected value for money, PDU monitors and evaluates contracts to ensure timely delivery of goods and services

4.7.4 ANOVA coefficients for the relationship between contract management and project performance

The ANOVA coefficients in table 17 below assesses whether the proportion of the variance explained in table 16 above is significant. It also tells us whether the overall effect of the independent variable on overall project performance is significant. Our hypothesis is; H_0: there is no relationship between project success and contract management. H_1: there is a relationship between project success and contract. The sig. (or p-value) is 0.037 which is below the 0.05 level of significance; hence, we reject the null hypothesis and conclude that the overall model is statistically significant, and that there is a relationship between contract management and project performance.

Table 18: ANOVA coefficients for the relationship between contract management and project performance

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	44.741	1	44.741	4.590	.037[a]
	Residual	536.136	55	9.748		
	Total	580.877	56			
a. Predictors: (Constant), Agreed quantity and quality delivered on time, Principal scientists were satisfied with the equipment and works provided by suppliers, Delivered products reflected value for money, PDU monitors and evaluates contracts to ensure timely delivery of goods and services						
b. Dependent Variable: Was your project successful						

CHAPTER FIVE
SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings, discussion, conclusions and recommendations of the study after collection, presentation, interpretation, analysis and discussion of data. Existing literature was integrated into the discussion for better understanding of the findings.

5.2 Summary of Findings

5.2.1 Procurement planning and project performance

The study concluded that the procurement planning practices significantly affect the performance of the MSI project. The study further inferred that performance of the project will depend on the extent to which the principal scientists and other beneficiaries clearly develop procurement specifications which are true and accurate to their requirements, while attaching adequate budgets. Realistic timelines for delivery of project equipment and services was provided. The findings indicated a strong positive correlation between procurement planning and project performance which was subjected to a hypothesis test. The research hypothesis was accepted and it was therefore concluded that there is a significant relationship between procurement planning and project performance.

5.2.2 Solicitation of bids and project performance

Summarized findings on how solicitation of bids affects project performance indicate that most of the respondents agreed that the Procuring and Disposal Unit at UNCST receives complete bid documents from potential suppliers and procurements were advertised in atleast two forms of media to ensure

competitive bidding. It was also noted that project beneficiaries participated in drafting of the evaluation criteria of bids received to ensure quality of procurements. Evaluation and Contract Committees with personnel of proper technical skills were always constituted on time. Results for testing the relationship between solicitation of bids and performance of the MSI project indicated a positive correlation. The research hypothesis was therefore, accepted and it was concluded that there is a significant relationship between solicitation of bids and project performance

5.2.3 Contract Management and project performance

Findings show that majority of the respondents agreed that PDU monitored the performance of service providers and prepared reports on works done by contractors. However, a few mentioned that the quality of goods and services delivered was not good and on time respectively, hence beneficiaries not being satisfied with the good and services delivered to them. The findings indicated a moderate correlation between contract management and project performance which was subjected to a hypothesis test. The research hypothesis was accepted and it was therefore, concluded that there is a significant relationship between contract management and project performance.

5.3 Discussion of Results

5.3.1 Procurement planning and project performance

The findings of this study about the relationship between procurement planning and performance of the MSI project, are in support with other researchers and scholars such as Basheka (2008), Rotich (2011), Mamiro (2010), James (2004) and Ocharo (2014). These researchers and academicians emphasized that procurement planning plays a positive role in the performance of a project. The findings of this study emphasize the same.

In this study, it was established that the MSI Project beneficiaries thought through their needs and specifications and developed a procurement plan that was agreed upon by all parties. This finding concurs with Mamiro (2010) who points out that, one of the major setbacks in public procurement is poor planning and management of the procurement process which include needs that are not well identified and estimated, unrealistic budgets and inadequacy of the skills of staff responsible for procurement. Oluka (2011), 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, services and works.

Majority of the respondents agreed that budgets were approved prior to commencement of the project, and plans were costed as per the approved budgets. These findings are in line with Ocharo (2013), who contends that procurement plans influence project performance in the sense that they provide focused and efficient utilization of the available resources, help in budgeting and planning. Therefore, with

adequate provision of funds due to procurement plans, performance is assured. More so, the results indicated that procurement plans help to know what to buy, when, how and using which method of procurement. This is also confirmed by Rotich (2011) whose results indicated that when procurement plans are formulated and reviewed bi-annually, this leads to accountability in the procurement process which enhances efficiency and effectiveness of the procurement function.

It was noted during the interviews that procurement planning is very important and highly participated in by most of the scientists. These findings are similar to Basheka (2008) who contended that procurement planning is one of the primary functions of procurement with a potential to contribute to the success of the local government operations and improved service delivery. Equally Gerald (2010) contends that arranging activities in a concrete schedule is important because it provides one with a road map for the project. It is important to stay on track and know were one stands with the project regarding desired completion date.

5.3.2 Solicitation of bids and project performance

The objective was to assess the impact of solicitation on project performance. The results indicated that there is a significant effect of solicitation of bids on project performance. In this study, it was established that UNCST has a list of prequalified service providers who provide quality service and has a good relationship with. This is in line with William (2006) who contends that among the duties of purchasing are identifying sources of supply, negotiating contracts, maintain a database of suppliers, obtaining goods and services that meet or exceed operations requirements in a timely and cost effective manner. Organisations should also establish and maintain good supplier relations.

This study also found out that UNCST advertised procurement of the MSI beneficiaries' goods and services in at least two forms of popular media to ensure competitive bidding. This is in support of the PPDA User Guide (2013), which states that, the Procurement and Disposal Unit is responsible for the preparation and issue of the Bidding Document and must use the appropriate standard document issued by the PPDA, as this is a mandatory requirement. In deciding the deadline for submission of bids, the PDE should allow Bidders sufficient time for studying the Bidding Document, preparing a responsive bid and submitting the bid. PDEs are required to comply with the minimum bidding periods given in the Regulations. The Bidding Document must be issued to all shortlisted bidders at the same time and must be issued early enough to ensure compliance with the minimum bidding period given in the Regulations. A record must be kept of the issue of documents.

On the other hand, the study found out that a few of the respondents were not satisfied with the way solicitation of bids was carried out. They mentioned that, "there was corruption in the system of selecting the qualified bidders, who in the end provided poor quality equipment, which was either absolute or did not measure to the given specifications". This statement is in line with Tanaka and Hayashi (2011) argument, which states that the implementation of efficient Public Procurement procedures is challenged by bid rigging, which involves collusion among bidders or between a bidder and a corrupt public officer. They advise that, the awarding Committee, usually a commission of experts selected by the public authority must follow prescribed procedures and maintain transparency in public tenders in order to prevent these situations.

This study found out that beneficiaries of the MSI project were not sure whether evaluation of bids followed the procurement ethical code of conduct, given that some of the goods and services were not satisfactory to them. These results can be compared to Piff., et al (2012) who carried out seven studies

using experimental and naturalistic studies in the United States of America (USA) on the factors that affect ethical standards in the public sector. The studies revealed that upper-class individuals behave more unethically than lower-class individuals. In this sense, the unethical attitudes of the upper class breeds unethical behaviour in the public sector procurement. However, the findings were in contrast with Ingram and Frazier (1983) and Korczynski (1986) who completely found no relationship between the code of ethics and performance. In addition, these findings disproved the works of Shane and Spicer (1983) and Hill, Kelley and Agle (1990) who concluded that there is a negative code of ethics and performance.

5.3.3 Contract management and project performance

The study found out that although the MSI project beneficiaries received their good and services, a few of them noted that the quality and quantity delivered was not satisfactory to them. This is consistent to Nadiope (2005) who observes that the government lacks trained procurement personnel. In Uganda the need for training personnel particularly to contract management can only be established after what is known about the same has been established. Public Procurement Entities must continuously formulate and implement strategies to address the existing capacity gaps within PDEs especially in the area of contract award and management. This is also evidenced by the PPDA Capacity Building Report (2010) which noted that some PDEs had serious constraints in execution and monitoring of contracts.

The findings obtained from the study established that some of the scientists were not satisfied with the works provided by the service providers and therefore, did not reflect value for money. This is in line with Alice (2006) who emphasizes that lack of effective contract management leads to poor financial performance in terms of poor returns on investment in a number of infrastructural projects. This is also in line with the Interagency Procurement Working Group (2006) which states that, the purpose of

contract management is to ensure that all parties to the contract fully meet their respective obligations as efficiently and effectively as possible, delivering the business and operational outputs required from the contract and providing value for money. Jugdev ,.etal (2005) observes that many shortcomings in the contract management process occur because the buyer and the supplier are two different entities, each trying to optimize its own profits thus hurting service delivery.

The study found out that UNCST PDU monitored the performance of service providers and prepared reports on works by contractors, hence some of the contractors producing sufficient work. This is supported by Tanaka and Hayashi (2011) who state that an important element in the formation and management of any contract is the relationship that exists between the parties. Having a professional, constructive relationship with the contractor is a key ingredient in the successful delivery of the outcomes sought by the contract.

The aim of relationship management is to keep the communications between the parties open and constructive, non-adversarial and based on mutual understanding. This should assist in preventing problems arising and also with resolving them in a timely manner should they arise. Having a professional, constructive relationship should assist the effective management of performance, particularly under-performance, should it occur. Maintaining a good relationship does not mean that issues of non-compliance or under-performance cannot be discussed and acted upon. It means that there is a greater likelihood that such issues can be discussed and resolved in a cooperative manner. Relationships will begin to form at the early stages of the procurement cycle. In circumstances
where the contract manager is appointed following contract award, the contract manager should seek to build on existing relationships.

5.4 Conclusion

5.4.1 Procurement planning and project performance

The study established that the MSI Project beneficiaries thought through their needs and specifications and developed a procurement plan that was agreed upon by all parties, although it was noted that a few didn't plan and budget properly. It was noted that the plan helped the Procuring Entities to achieve maximum value for expenditures on services to be delivered and address all relevant issues pertaining to the procurement before they announced to potential suppliers of goods, services and works. It was also noted that procurement plans helped to know what to buy, when, how and using which method of procurement. Majority of the scientists agreed that budgets were approved prior to commencement of the project, and plans were costed as per the approved budgets.

5.4.2 Solicitation of bids and performance of projects

The study established that UNCST had a list of prequalified service providers who provide quality service and has a good relationship with. The institution also advertised procurements of the MSI beneficiaries' goods and services in at least two forms of popular media to ensure competitive bidding and allowed bidders sufficient time for studying the Bidding documents in order to prepare a responsive bid. On the other hand, the study found out that a few of the respondents were not satisfied with the way solicitation of bids was carried out. They mentioned that, there was corruption in the system of selecting the qualified bidders, who in the end provided poor quality equipment, which was either absolute or did not measure to the given specifications.

5.4.3 Contract management and performance of projects

The study found out that although the MSI project beneficiaries received their good and services, a few of them noted that the quality and quantity delivered was not satisfactory to them, therefore the procurements didn't reflect value for money. Contract management was mainly affected by the non-adherence to the delivery of the agreed quantity and quality of goods and services on time. It was noted that ssuccessful contract management is significantly dependent upon what happens during the planning, tendering, evaluation and award phases, however, the Monitoring and Evaluation system of the UNCST PDU was not strengthened from project onset to track projects from activity to outcome, hence there being delays in procurement of the equipment which was either obsolete or not having all the accessories and in other projects, services and/or equipment was delivered two years into the project.

5.5 Recommendations

5.5.1 Procurement planning and project performance

The findings show that some principal scientists had not appropriately planned and this affected effective implementation of their projects. The researcher therefore, recommends that the project plan should have been followed by both the beneficiaries of the project from conception, execution and appraisal if projects were to deliver the intended outcomes. There is also need to decentralise project procurements so that each of the MSI projects located in universities of Makerere, Kabale, Gulu, Busitema and Mbarara and National Research Institutions like Namulonge and Kawanda can handle

their procurements to avoid delays by the UNCST procurement and disposal unit where all the project procurements are done in a consolidated manner.

The researcher recommends that UNCST should recruit additional procurement personnel who are conversant with procurement systems. There is also need to train the existing personnel the intricacies of the MSI project procurement so that they can perform better and efficiently. It was also noted that there is a huge information gap between the procurement entity and the project beneficiaries especially with regard to the stage and movement of procurements. There is therefore, need to improve communication with the project implementers.

5.5.2 Solicitation of bids and performance of projects

In relation to solicitation of bids in improving performance of the MSI project, The UNCST PDU needs to identify appropriate and quick procurement methods such direct procurement of goods that can be readily acquired from within the country or from internationally recognised suppliers instead of open competitive bidding to avoid delays.

All those involved in procurement activities have a responsibility to behave ethically at all times since ethical behavior supports openness and accountability in a procurement process and gives suppliers confidence to participate in the Government market place. Ethical behavior can also reduce the cost of managing risks like wrong procurement of equipment which was the key factor associated with the MSI project.

5.5.3 Contract management and performance of projects

In relation to contract management in improving performance of the MSI project, The UNCST PDU needs to carry out due diligence on the suppliers of goods and services to find out whether they have the ability to deliver the promised goods and works in time and also find out if they have the capacity in terms of resources to implement the contracted services.

Project beneficiaries and procurement officers should be trained in record keeping to ensure projects are delivered as planned. Hard and soft copies of the contract files should be stored and logged-in time sheets using the available technologies such as contract manager software with clear mechanisms for identifying key contract trigger points and responsibilities for responding. Monitoring and evaluation system should be strengthened from project on set to track progress of activities to completion. Successful contract management is significantly dependent upon what happens during the planning, tendering, evaluation and award phases.

5.6 Limitations of the Study

The researcher used a cross- section design meaning that the research was conducted only on a small size of population who were the MSI project beneficiaries and for a particular purpose. However if the researcher had used the longitudinal design, results should have been different. Hence the data being relevant to only the MSI project.

The researcher considered only beneficiaries of the MSI project for her study, meaning that experiences drawn are only applicable to the procurement management process of MSI project and may not be applicable to any other project . It is therefore, advisable for researchers to use this data cautiously.

5.7 Contribution of the study

The empirical results from this study have important implications and contributions for both practitioners and scholars. It is therefore, important in any research to provide strong theoretical contributions, as well as empirical contributions as a start point to provide final contributions to practitioners. The study shows that procurement planning, solicitation of bids and contract management have a positive effect on the performance of projects. Theoretically, the study contributes to the body of knowledge regarding the effect of procurement management on project performance. This research has demonstrated that procurement management practices as suggested by the PMI (2001) affects the performance of projects.

5.8 Areas for Further Research

The study was mainly limited to the impact of procurement management on project performance and did not therefore stretch to other areas that might have affected the overall project performance. There is need to undertake a study to determine the magnitude of the effect of other factors on project performance. Other suggested areas where further research is required include;

a) Assessment of the effect of the ethical code of conduct on overall project performance

b) The impact of human resource management on project performance

c) The role of accounting and reporting systems in meeting project targets

REFERENCES

Amin, M.E. (2005). Social Science research: Conception, Methodology and analysis. Kampala, Uganda. Makerere University Printery.

Andre' A .de Waal (2005); Insights from practice, is your organization ready for beyond budgeting? *Measuring Business excellence* Vol 9 No: 2 pp56-67

Arrowsmith, S.; Linarelli,J;& Wallace , D.J R., (2003). Regulating Public Procurement: National and International Perspective. Kluwer Law International.

Arrowsmith, S. & Trybus, M (Eds.) (2003). Public Procurement: The continuing Revolution. Kluwer international

Barifaijo, K.M., Basheka, B., & Oonyu,J (2010) , How to write a good dissertation / thesis: A Guide to Graduate students

Bamberger, Michael and Hewitt, (1986) Monitoring and Evaluating Urban Development Programs, A Handbook for Program Managers and Researchers. World Bank Technical Paper no 53. Washington, D.C.

Benon C.Basheka. (2008) Procurement Planning and Accountability of Local Government Procurement Systems in Developing Countries: Evidence from Uganda, *Journal of Public Procurement*, Volume 8, Issue 3, 379-406.

Chitkara K. K. (2005). Project Management –Planning, Scheduling and Controlling – Tata McGraw Hill, New Delhi

Chopra, S, (2005). "Designing the Green Supply Chain", Contract Management, NAPM Insights, June 1, p.52

Contract Management Guide (2005), the Chartered Institute of Purchasing and Supply.

Cooke-Davies, T. (2002). The "real" success factors on projects. *International Journal of Project Management*, 20 (3), 185-190.

Coviello, Nichole E., Roderick J. Brodie, Peter J. Danaher, & Wesley J. Johnston (2002), "How Firms Relate to Their Markets: An Empirical Examination of Contemporary Marketing Practices," *Journal of Marketing*, Vol. 66, No. 3, July, pp. 33-46.

Cox, A. & Thompson, I. (1997) Fit for Purpose Contractual Relations: Determining a Theoretical Framework for Construction Projects. European Journal of Purchasing & Supply Management, 3 (3), 127-135

Eriksson, P. E. & Laan, A. (2007) Procurement Effects on Trust and Control in Client- Contractor

Relationships. Engineering, Construction and Architectural Management, 14 (4), 387-399.

Eyaa,S. and Oluka, P.N (2011). Explaining Non-Compliance in Public Procurement in Uganda: International Journal of Business and Social Science, Vol.2, No. 11 (Special Issue –June 2011)

Gulati, R. (1995), "Does Familiarity Breed Trust? The Implications of Repeated Ties for Contractual Choice in Alliances," *Academy of Management Journal*, Vol. 38, No. 1, pp. 85-113

Government of Uganda, The Public Procurement and Disposal of Public Assets Act 1, 2013. Kampala, Uganda: Government of Uganda

IEG (Independent Evaluation Group). 2011. IEG Annual Report 2011: *Results and Performance of the World Bank Group*. Washington DC; Independent Evaluation Group, World Bank Group. Louisa Gosling, How to guide Monitoring and Evaluation, July 2010

Ingram R., Frazier, K. (1983): "Environmental Performance and Corporate Disclosure". Journal of Accounting Research, 18, 614 - 622.

Jugdev, K. & Muller, R (2005), "A Retrospective Look at our evolving understanding of process success", *Project Management Journal*, Vol. 36, No.4, pp 19-31.

Kerzner H, Project Management: A systems Approach to Planning, Scheduling and Controlling, Van Norstrand Rheinhold , 1997.

Krejecie, B and Morgan R (2002), Generalized Scientific guidelines for sample size decisions. London, Pitman Publishing, Long Acre 5th Edition.

Korczynski, M. (1996), The Low-Trust Route to Economic Development: Inter-Firm Relations in the UK Engineering Construction Industry in the 1980s and 1990s. *Journal of Management Studies*, 336), 787-808

Laratta, R. (2009) "Autonomy and accountability in social services nonprofits: Japan and UK", Social enterprise Journal, Vol.5 Iss: 3, pp.259-281

Lysons, K (2000), Purchasing and Supply Chain Management: Financial Times. Prentice Hall, Pearson Education Ltd, England

Nadiope ,M. (2005): "Effects of Contract Management Methods of Donor Funded projects on the construction industry in Uganda", Final Year project , Department of Civil Engineering , Kyambogo University (un published)

Nalubowa Alice (2012), "The Impact of Contract Management on Financial Performance in the

Public Sector: A Case Study of Uganda National Roads Authority, Makerere University College of Business and Management Scences (un published)

Ntayi J. M, Ssewanyana J., S. Eyaa, (2009). Procurement Trends in Uganda (un published)

Mamiro, R. G. (2010). Value for Money, The Limping Pillar in Public Procurement. Tanzania *Procurement Journal* , 4 -5.

Mawhood, P. (1983). "Decentralization: The Concept and Practice." In Phillip Mawhood (Ed.), Local Government in the Third World: The Experience of Tropic Africa (pp 1-24). New York: John Wiley & Sons.

Minahan, T. (2007) Get Real: The Secret to Supply Risk Management. *A Journal of Business logistics.* Vol.21, No. 2, pp1-16

Mullins, L.J. (2007) Management and Organizational Behaviour ; Pearson Education Limited ; Edenburgh Gate , Harlow –England.

Mullins, D.R. (2003). Accountability and Coordination in a Decentralized Context: Institutional, Fiscal and Governance Issues. Washington, DC: American University.

Mugenda, O.M & Mugenda, A.G (2003). Research Methods; Nairobi ACTS PRESS.

Ntayi, J.M., Eyaa, S. & Ngoma, M. (2010). Moral Disengagement and the Social Construction of Procurement Officers' Deviant Behaviours. Journal of Management Policy and Practice vol. 11(4) 2010 95.

Public Finance (Procurement) Regulations (2000). Statutory Instruments 2000 No.64, made under section 6 of the Public Finance Act, Cap 149. Pp 325-360.

Rotich, L. M. (2011). Influence of Planning on Procurement Performance in the Kenya Public Financial Sector

Shane, P.B. and B.H. Spicer, (1983), "Market Response to Environmental Information Produced Outside the Firm," The Accounting Review, Vol.LCII No.3 July pp. 521-538.

Sanders, R.N.; Locke, A; Moore, B.C.; & Autry, W.C. (2007). A Multidimensional Framework for Understanding Outsourcing Arrangements, The Journal of Supply Chain Management: A Global review of Purchasing and supply, November 2007, pp3-15

Saunders, M.N.K., Lewis , L., & Thornhill, A. (2000). Research Methods for Business 2nd edition Prentice Hall Pearson Education ISBN 0-273-63977-3

Thai , KV., (2004). Introduction to Public Procurement. First Edition Florida Atlanta University

Tanaka, S., Hayashi, S., 2011. Bid-Rigging in Japanese Public Procurement, in Thai, K.V.,

Towards New Horizons in Public Procurement, PrAcademics Press, pp.150-169.

Touliatos , J.S. , & Compton , N.H. (1988). Research methods in human ecology /home economics. Lowa State University Press / AMES

Uganda National Council for Science and Technology (2007). Project Implementation Plan and anual, 2007. Kampala Uganda

Wills Yuko Oso., David Onen., (2009). Writing Research proposal and Report: AHanad book of beginning researchers. Jomo Kenyatta Foundation, Sitima Printers & Stationers Ltd, Nairobi – Kenya

APPENDICES

Appendix 1: QUESTIONNAIRE

Re: Questionnaire on the effect of Procurement Management on Project Performance: A Case of the Uganda Millennium Science Initiative (MSI) Project

Dear respondent, I am a student at Uganda Management Institute (UMI) and I am conducting an academic study on the Effect of Procurement Management in Project Performance: A Case of the Uganda Millennium Science Initiative (MSI) Project. As one of the key project stakeholders, your opinion is very important to this study. The information you provide will only be used for academic purposes and will be treated with utmost confidence.

I will be happy to receive your response within one week.

Thank you for your cooperation.

Yours Faithfully,

Hellen Opolot Naluyima
Uganda Management Institute -Masters Student

SECTION A: GENERAL INFORMATION (PEASE TICK AS APPROPRIATE)

Qn. 1 What is your gender? ☐ Male ☐ Female

Qn. 2 What is your highest formal Qualification?

☐ PhD/DSc ☐ MSc/ MA ☐ BSc/ BA ☐ Professional Qualification ☐

Others, Specify…….

Qn. 3 Indicate the nature of institution where your project is based

☐ University ☐ Research Centre ☐ Private enterprise

☐ Public Institution ☐ NGO ☐ Others, specify …….

Qn. 4 What category did you belong to during the MSI project?

☐ Principal Scientist ☐ Student ☐ UNCST Staff

☐ UIRI Staff ☐ Technical Committee

SECTION B: THE EFFECT OF PROCUREMENT MANAGEMENT IN PROJECT PERFORMANCE

The questionnaire has items on a five (5) point likert scale, ranging from Strongly Agree to Strongly Disagree alternatives. Please tick only ONE (1) of the boxes for each question that best represents your opinion to the statement.

Strongly Agree - 5 Agree - 4 Not sure -3 Disagree - 2 Strongly Disagree -1

Qn.5. Please tick the response that best describes your experience with respect to the MSI project procurement planning processes

No.	Procurement Planning	SA	A	NS	D	SD
a.	Project Personnel were involved in defining their procurement needs and specifications to ensure effective procurement and project performance.	5	4	3	2	1
b.	A procurement schedule/ plan was developed and agreed upon by all parties.	5	4	3	2	1
c.	Project budgets were approved prior to project commencement.	5	4	3	2	1
d.	The procurement plan was costed as per the approved MSI project budget.	5	4	3	2	1
e.	Professional advice and support such as training and counseling was provided to individual procuring entities.	5	4	3	2	1
f.	All procurements were submitted on time and consistent with the project plan and schedule.	5	4	3	2	1
g.	Realistic timelines for delivery of project equipment and services were provided.	5	4	3	2	1
h.	Quality standards for goods and services were agreed upon by the users and PDU.	5	4	3	2	1
i.	Overall, the procurement planning process improved project performance.	5	4	3	2	1

Qn. 6. Please tick the response that best describes your experience with respect to the solicitation of goods, works and services under the MSI project

	Solicitation and Evaluation	**SA**	**A**	**NS**	**D**	**SD**
a.	UNCST maintains a list of competitively prequalified service providers who provide quality service.	5	4	3	2	1
b.	Procurements were advertised in at least two forms of media to ensure competitive bidding.	5	4	3	2	1
c.	Project personnel participated in the drafting of the evaluation criteria for bids to ensure quality of procurements.	5	4	3	2	1
d.	An evaluation panel with proper technical skills was constituted on time.	5	4	3	2	1
e.	The evaluation process followed the procurement ethical code of conduct.	5	4	3	2	1
f.	Overall, the solicitation and evaluation process improved project performance.	5	4	3	2	1

Qn. 7 Please tick the response that best describes your experience with respect to the contract management of goods, works and services under the MSI project

	Contract management	**SA**	**A**	**NS**	**D**	**SD**
a.	The agreed quantity and quality was delivered on time.	**5**	**4**	**3**	**2**	**1**
b.	PDU monitors and evaluates contracts to ensure timely delivery of good and services.	**5**	**4**	**3**	**2**	**1**
c.	Principal Scientists were satisfied with the equipment and works provided by suppliers.	**5**	**4**	**3**	**2**	**1**
d.	The delivered products reflected value for money.	**5**	**4**	**3**	**2**	**1**
e.	PDU monitored the performance of service providers and prepared reports on works / services done by contractors.	**5**	**4**	**3**	**2**	**1**

✹END✹

Thank you very much for your cooperation!

APPENDIX 2: INTERVIEW GUIDE FOR PDU, UNCST TOP MANAGEMENT AND KEY PRINCIPAL SCIENTISTS

Dear Respondent,

This interview is aimed at obtaining in-depth information relating to performance of the MSI project as well as the procurement function. The information obtained will help assess the linkages between project procurement and overall performance and will be purely for academic purposes.

Qn.1 Please indicate some of the challenges that you faced during the implementation of the Millennium Science initiative Project?

Qn.2 Was your project successful? If not, what do you think were the major reasons for the poor performance?

Qn.3 Do you think the procurement process played a role in the poor performance of the MSI project? If yes, please explain

Qn.4 Please give your view about the MSI project procurement timelines, cost and Quality of scientific equipment, works and services.

Qn.5 What is your opinion of the PDU in implementing the procurement functions of the MSI project?

Qn.6 Are there recommendations you would give for the improvement of the procurement functions of projects?

Qn.7 What recommendations would you give for the successful implementation of future projects?

Appendix 3: DOCUMENTARY REVIEW GUIDE

No.	Title of document	Particulars : Theme/Topic to review	Comments
1)	Project Implementation Plan and Operations Manual (PIP)	▪ Vision and mission of the MSI Project ▪ Objects of the MSI project ▪ Project Operating Principles	
2)	Annual reports	▪ MSI project performance ▪ Procurement Performance	
3)	Internal Audit reports	▪ Expenditure of MSI projects	
4)	Annual Procurement Plan	▪ Specification of supplies , works and services ▪ Budgets ▪ Delivery Timelines	
5)	Monthly procurement reports	▪ Evaluation Reports ▪ Performance / Monitoring reports ▪ Total number of supplier deliveries ▪ Adherence to delivery timelines	
6)	World Bank review Aide Memoires	▪ General MSI project performance ▪ Procurement Performance	

APPENDIX 4: LETTER FROM UMI FOR COMMENCEMENT OF FIELD RESEARCH

UGANDA MANAGEMENT INSTITUTE

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Your Ref:

Our Ref:
G/35

13 March 2014

TO WHOM IT MAY CONCERN

MASTERS IN MANAGEMENT STUDIES DEGREE RESEARCH

Ms. Hellen Opolot Naluyima is a student of the Masters in Management studies of Uganda Management Institute 28th Intake 2012/2013, **Reg. Number 12/MMSPPM/28/112**.

The purpose of this letter is to formally request you to allow this participant to access any information in your custody/organization, which is relevant to her research.

Her research Topic is: **"The Effect of Procurement Management on Project Performance" A Case of the Uganda Millennium Science Initiative Project.**

Stella Kyohairwe (PhD)
AG.HEAD, POLITICAL AND ADMINISTRATIVE SCIENCE