# PROCUREMENT CAPACITY BUILDING AND PROFESSIONALISM OF PUBLIC PROCUREMENT AT UGANDA ELECTRICITY DISTRIBUTION COMPANY LIMITED

By

Sheila Nakiwala

SEP16/MPAM/012U

School of Business and Management

Supervisor

Frederick Mwesigye

**UTAMU** 

A PROPOSAL SUBMITTED TO THE SCHOOL OF BUSINESS AND MANAGEMENT IN

PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS IN

PUBLIC ADMINISTRATION AND MANAGEMENT (PUBLIC PROCUREMENT) OF

UGANDA TECHNOLOGY AND MANAGEMENT UNIVERSITY (UTAMU)

March, 2017

# **DECLARATION**

I declare that this Research Proposal is my ori	iginal work and has never been submitted to any
institution of learning for any award.	
Signature	Date

## NAKIWALA SHEILA

APPROVAL
This Research Proposal has been submitted with my approval as supervisor.
Signature Date
MR. FREDERICK MWESIGYE

# Contents

DΕ	CLARA	ATION	i
ĄΡ	PROVA	AL	ii
(	СНАРТ	TER ONE	1
	INTR	ODUCTION	1
	1.1	Introduction	1
	1.2	Background	1
	1.2.	1 Global Perspective	1
	1.2.	2 African Perspective	2
	1.2.3	3 Uganda Perspective	3
	1.3	Statement of the Problem	4
	1.4	The Purpose of the Study	5
	1.5	Objectives of the Study	5
	1.6	Research Questions	5
	1.7	Hypotheses of the Study	6
	1.8	Conceptual Framework	6
	1.9	Significance of the study	8
	1.10	Justification of the Study	9
	1.11	Scope of the Study	10
	1.11	I.1 Content Scope	10
	1.11	1.2 Geographical Scope	10
	1.11	1.3 Time Scope	10
	1.12	Operational Definitions	10
СН	APTER	R TWO	12
LI	TERA	ATURE REVIEW	12
	2.1	Introduction	12
	2.2	Theoretical Review	12
	2.3	Conceptual Review	14
	2.3.	1 Institutions of Higher Learning and Public Procurement Professionalism	14
2.3.2		Capacity Building initiatives by PPDA and Public Procurement professionalism	15
	2.3.3	3 IPPU and Public Procurement Professionalism Error! Bookmark not defi	ned.
	2.3.	4 Civil Service College Uganda (CSCU) and Public procurement professionalism	rror
	Boo	kmark not defined.	

2.4	Empirical Review	16
2.5	Synthesis of the literature review	18
CHAPTER	R THREE	20
METHO	OOLOGY	20
3.1	Introduction	20
3.2	Research Design	20
3.3	Study Population	22
3.4	Determination of sample size	22
3.5	Sampling Techniques and Procedure	24
3.6	Data Collection methods	24
3.7	Data collection instruments	25
3.7.	1 Questionnaire	25
3.7.	2 Documentary review schedule	25
3.8	Pre-testing (Validity and reliability of Instruments)	25
3.9	Procedure of data collection	28
3.10	Data Analysis	29
3.10	0.1 Quantitative data analysis	29
3.10	0.2 Qualitative data analysis	30
3.11	Measurement of variables	30
REFEREN	CES	I
APPEND	CES	VI
Apper	dix 1: Questionnaire	VI
Apper	dix 2: Work plan and Timeframe	XI
APPEN	IDIX 3: Krejcie & Morgan Table for determining sample size	XII

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Introduction

This study will examine the relationship between capacity building and public procurement professionalism at Uganda Electricity and Distribution Company Limited. Capacity building is conceived as the independent variable while procurement professionalism is conceived as the dependent variable. Capacity Building will be measured in form of Capacity building initiatives carried out by the Public Procurement and Disposal of Public Assets Authority (PPDA) such as staff training. Professionalism will be measured in form of the level of compliance to public procurement system, process and procedure as explained in the conceptual framework in **Figure** 1.

In addition to the introduction, this chapter covers the background to the study, statement of the problem, purpose of the study, objectives of the study, the research questions, the hypotheses, the scope of the study, the significance, justification and finally operational definitions of terms and concepts.

## 1.2 Background

#### 1.2.1 Global Perspective

Globally, Governments are faced with increasing demands from their users of their services and citizens influenced by changes such as devolution of Government, increasing engagement of the private sector in in service delivery, technology shifts and globalization of service providers.

Consequently public sector agencies are required to respond and adapt in a manner that meets these challenges. Such transformations are often associated with building capacity and capability which has become a central theme for public policy (Hall, 2002), embracing a wide range of issues including sustainable development, healthcare provision, managing and delivering prison services and increasingly public procurement.

Between 2010 and 2012, the European Bank for Reconstruction and Development implemented an extensive campaign to support procurement capacity building activities whose overall objective was to develop a sustainable capacity assessment programme. The assessment highlighted a large number of areas of opportunity for improvement within the region. It was also found that many steps of the procurement process under the project still run through the clients' internal systems and procedures and absolute ring fencing of the procurement implementation is not possible and is not convenient for capacity building. The assessment provided an opportunity to provide training in the areas of opportunity identified in the review. (ERBD, 2012).

#### 1.2.2 African Perspective

Within Africa, COMESA (Common Market for Eastern and Southern Africa) carried out an independent evaluation of the institutional capacity building initiative of the COMESA Enhancing Procurement Reforms and Capacity Project (EPRCP). The EPRCP focused on capacity building issues and as part of this project, over 1,800 professionals associated with procurement entities in the region were trained.

Key findings from the five country case studies - Ethiopia, Kenya, Rwanda, Uganda and Zambia indicated that most of the case study countries have capacity building strategies for public procurement, prepared with the assistance of development partners. The findings also suggested that Public procurement systems are haunted by serious capacity constraints which are an impediment to the meaningful decentralisation of the procurement function. Further, that while most of the procurement capacity development activities are focused on the public sector, there is an increasing recognition that private sector capacity building should be adequately addressed to ensure their effective participation. Governments are taking steps to use the academic institutions as well as their own training centres towards building procurement capacity. Finally, the problem of high turnover of qualified procurement staff was faced by all case study countries. (African Development Bank Group, 2012).

#### 1.2.3 Uganda Perspective

According to Section 6(e) of the Public Procurement and Disposal of Public Assets Act (PPDA Act, 2003), PPDA is mandated to carry out procurement and disposal capacity in Uganda for all stakeholders involved in the procurement and disposal processes.

Several higher training institutions graduate students each year at professional entry level (undergraduate and graduate entry), who are absorbed into the profession, in addition to majority enrolling for the internationally accredited CIPS (Chartered Institute of Procurement and Supply) Course. The Institute of Procurement Professionals of Uganda (IPPU)'s main objective is to prescribe, regulate the practice and conduct of members of the procurement profession and to promote procurement professional standards in Uganda. The Civil Service College Uganda

(CSCU) of the Ministry of Public Service (MoPS); also carries out training of public servants in several areas including public procurement.

#### 1.3 Statement of the Problem

According to the national budget framework paper; the total resource inflows in Financial Year 2014/15 were projected to amount to Shs14, 317.2bn. Calculations based on procurement plans submitted to PPDA by compliant PDEs; and their respective budgetary allocations show that 50.2% of the national budget was projected to go towards procurement. Considering the huge amounts of funds devoted to public procurement, some measures are necessary to ensure that these funds are well utilized. However these measures are often curtailed by non-compliance and unethical behaviors of procurement officials.

According to the Annual Procurement and Disposal Audit Report on Procurements and Disposals for the Year Ended June 2015, the PPDA noted that some Procurements were conducted outside the procurement plan, wrong procurement methods were used, there was failure to prepare solicitation documents, failure to use preference schemes, low bidder participation, failure to adhere to the evaluation methodology and criteria stated in the solicitation document, failure to conduct evaluation, missing contracts, failure to appoint contract managers/supervisors, delayed execution of works/ poor workmanship and abandoned sites by contractors before contract completion, and financial loss.

Capacity building is always recommended as a measure to improve compliance however noncompliance continues to be exhibited hence the need for this study to assess the effect of procurement capacity building to professionalism of public procurement otherwise noncompliance will continue and the recommendations for capacity building may not be the solution to alleviate the problem.

#### 1.4 The Purpose of the Study

The main purpose of the study is to establish the extent to which procurement capacity building contributes to procurement professionalism at Uganda Electricity and Distribution Company Limited.

## 1.5 Objectives of the Study

The following are the objectives of the study:

- i. Assess how procurement training by PPDA influences public procurement professionalism at UEDCL.
- ii. Find out the impact of procurement capacity building interventions by PPDA on procurement professionalism at UEDCL
- iii. Establish the extent to which procurement capacity building interventions by PDDA are relevant in achieving desired procurement professionalism at UEDCL.

#### 1.6 Research Questions

- i. How does procurement training by PPDA influence public procurement professionalism?
- ii. What is the impact of procurement capacity building interventions by PPDA on achievement of desired procurement professionalism?

iii. To what extent are capacity building interventions by PPDA relevant to procurement professionalism?

## 1.7 Hypotheses of the Study

- i. Procurement training by PPDA influences public procurement professionalism.
- ii. Capacity building interventions by PPDA have positive impact on achievement of desired procurement professionalism.
- iii. Capacity building interventions by PPDA are to a larger extent relevant to procurement professionalism.

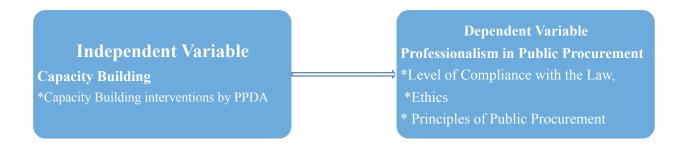
#### 1.8 Conceptual Framework

Mugenda and Mugenda (2003) defines conceptual framework as a concise description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. Conceptual research is that related to some abstract ideas or theory. It is generally used by philosophers and thinkers to develop new concepts or to reinterpret existing ones, the conceptual literature concerning the concepts and theories and explain how the variables relate. (Kothari, 2004). It is research tool intended to assist a study to develop awareness and understanding of the situation under scrutiny and to communicate this.

According to Bogdan and Biklen (2003) a conceptual framework is a basic structure that consists of certain abstract blocks which represent the observational, the experiential and the analytical synthetically aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes. This study conceptualized a framework

consisting of an independent and dependent variable. The independent variable for this study was capacity building of procurement cadre while the dependent variable was level of procurement professionalism. The independent variables and their relationship with dependent variable are presented in the following **Figure 1.** 

Figure 1: Conceptual Framework



(Source: Adopted from C.W. Ndumbi & B.Okello (2015) with modifications)

The above Conceptual framework presents Capacity Building as the independent variable with the dimension of Capacity Building interventions by PPDA. On the other hand Professionalism in Public Procurement is presented as the dependent variable to specifically consider compliance with the law, Ethics and principles of Public Procurement.

#### 1.9 Significance of the study

Scientific research improves decision making, reduces uncertainty, enables adopting new strategies, and helps in planning for the future and ascertaining trends. (Ahuja, 2001. P.48). In agreement with this, the proposed study will:

- i. Contribute to the understanding of the qualifications and experience of procurement professionals in Government Entities.
- ii. Contribute to deeper understanding of the successes and challenges of Procurement capacity building of procurement professionals.
- iii. Contribute to enhancing knowledge on facilitating procurement professionalism and continuation of procurement capacity building in Government Entities.
- iv. Contribute to recommendations for improving the relevancy, efficiency and effectiveness of procurement capacity building interventions in Government Entities.
- v. Contribute to the knowledge base of future researchers since it will act as their guide and will bridge the gap that previous researchers left so far as procurement capacity building and professionalism of public procurement is concerned.
- vi. Contribute to the researcher's academic progress towards earning a Masters' Degree in Public Administration and Management Public Procurement of Uganda

Technology and Management University and enhance the researcher's professional visibility.

## 1.10 Justification of the Study

Uganda Electricity Distribution Company Limited (UEDCL) is a limited liability company incorporated in Uganda under the Companies Act. It commenced operations on 1<sup>st</sup> April 2001. The mandate of UEDCL changed following the conclusion of the concession process of the distribution business to a private operator, UMEME Ltd. Whereas UEDCL continued to own the grid network at 33kV and below, the assets were leased out to UMEME Ltd.

UEDCL's core business activities can be summarised as: Electricity distribution that entails; Ownership of electricity distribution network and associated assets in Uganda at 33kv and below with in Uganda; Monitoring compliance of the lease and assignment agreement; Operating and maintaining the electricity off grid stations in Moyo, Moroto, and Adjumani until their divesture; Managing the pole treatment plant; and Supervising the completion of the rural electrification schemes.

From previous audits conducted by PPDA at UEDCL, it has been noted that the high and medium risk cases have reduced and the low risk and satisfactory cases have increased. UEDCL was chosen because of this performance of the Entity which is considered good in order to get a clear understanding of the designing and implementation of procurement capacity building as well as their effect on procurement professionalism which aspects have no ready answers.

## 1.11 Scope of the Study

## 1.11.1 Content Scope

The study will be limited to Procurement Capacity Building as an independent variable which will consider the dimension of Capacity Building interventions by PPDA. Public procurement professionalism will be the dependent variable and will specifically consider compliance of public procurement personnel to the law, Ethics and principles of public procurement.

#### 1.11.2 Geographical Scope

Due to the diversity of Entities undertaking public procurement, this study will only focus on Uganda Electricity and Distribution Company Limited.

# 1.11.3 Time Scope

The period of study will cover the period from 2001 when UEDCL was established by an act of the Ugandan parliament following the break-up of the Uganda Electricity Board.

## 1.12 Operational Definitions

#### **Capacity Building:**

Can be defined as the process whereby people, organizations and society as a whole unleash, strengthen, create, adapt and maintain capacity over time through acquisition, incentives, technology and training.

Capacity:

Means the ability of people, organizations and society as a whole to perform mandated functions economically, efficiently, effectively and sustainably.

**Public procurement:** 

Refers to the acquisition of goods, services and works by a procuring entity using public funds (World Bank, 1995). Søreide (2002) explains public procurement as the public acquisition or public purchase of goods and services.

**Professionalism:** 

Means the strict adherence to courtesy, honesty and responsibility when dealing with individuals or other companies in the business environment.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1 Introduction

In addition to the introduction, this chapter covers the conceptual review, empirical studies and synthesis of the literature review. This chapter discusses the opinions, findings from different authors, publications, magazines, websites and all possible sources as basis of foundation for this research study. Later sections in the chapter will review empirical works previously carried out by various authors on the subject.

#### 2.2 Theoretical Review

Manuj and Mentzer (2008) correctly assert that a good research should be grounded in theory. This study bases on the institutional theory, socio- economic theory, principal agent theory, cognitive theory and legitimacy theory. The institutional theory is the traditional approach that is used to examine elements of public procurement (Obanda 2010). Scott (2004) identifies three pillars of institutions as regulatory, normative and cultural cognitive. The regulatory pillar emphasizes the use of rules, laws and sanctions as enforcement mechanism, with expedience as basis for compliance. The normative pillar refers to norms and values with social obligation as the basis of compliance. The cultural-cognitive pillar rests on shared understanding (common beliefs, symbols, shared understanding). Borrowing from this theory, public institutions in Uganda are guided by rules and regulations with the PPDA Act (2003), regulations (2003) and guidelines directing procurement activities. From the three pillars of institutions propounded by

Scott (2004), organizational culture, social influence, organizational incentives and enforcement are identified as antecedents of compliance to procurement rules.

The principal-agent theory is an agency model developed by economists that deals with situations in which the principal is in position to induce the agent, to perform some task in the principal's interest, but not necessarily the agent's Health and Norman (2004). Donahue (1989) explains that procurement managers including all civil servants concerned with public procurement must play the agent role for elected representatives. As cited by Krawiec (2003), compliance may represent a principal-agent problem (Langevoort, 2002).

Festinger (1957) proposed the theory of cognitive dissonance. This theory led to a number of derivations about opinion change following forced compliance. From this theory, it is inferred that that when someone is forced comply, dissonance is created between their cognition (I did not want to do this) and their behaviour (I did it). Forced public procurement compliance can therefore culminate into cognitive dissonance.

Sutinen and Kuperan (1999) propounded the socio-economic theory of compliance by integrating economic theory with theories from psychology and sociology to account for moral obligation and social influence as determinants of individuals' decisions on compliance. Lisa (2010) also adds that psychological perspectives provide a basis for the success or failure of organizational compliance.

According to Wilmshurst and Frost (2000), the legitimacy theory postulates that the organization is responsible to disclose its practices to the stakeholders, especially to the public and justify its existence within the boundaries of society. This theory, which focuses on the relationship and

interaction between an organization and the society, provides a sufficient and superior lens for understanding government procurement system (Hui et al; 2011). From these theories, the perceived legitimacy of public procurement rules, organizational culture, social influence, organizational incentives and enforcement have been identified as some of the antecedents of public procurement compliance behavior.

## 2.3 Conceptual Review

The following is a review of the key concepts of the study.

#### 2.3.1 Public Procurement Professionalism

There are various institutions of higher learning offering procurement degrees at professional entry level (undergraduate and graduate entry) and preparing graduates for professional work after graduation. According to the National Council for Higher Education, 39 licensed Universities, and 30 other recognised institutions of Higher learning with 18 Universities and 23 Institutions of Higher Learning offering procurement programmes at Master's degree level, Post Graduate degree, Bachelor's degree, and Diploma programme. In this study the researcher will focus on how attainment of the above procurement qualifications contributes to public procurement professionalism.

The characteristics of a procurement professional can be divided into seven groups. (Killen and Kamauf, 1995). The content of their model is very similar to the one of Guinipero and Pearcy (2000), although they increasingly emphasize the business skills and bring out the skills related to other functions. Individual procurement professional skills are often studied in a broader context as part of for example logistics skills and competencies. According to Gamelgaard and

Larson (2001) the skills sets normally include more technical and productional aspects. Kalinzi (2014) noted that when researching the individual skills of a procurement professional, the sources of skills for example the individual's educational background should also be noticed.

#### 2.3.2 Capacity Building initiatives by PPDA

The legal mandate of PPDA is derived from the objectives as stipulated under Section 6 (e) of the PPDA Act to build procurement and disposal capacity in Uganda. Since the Inception of the PPDA Act, several capacity building initiatives have been undertaken by the Directorate of Capacity Building and Advisory Services of PPDA, which is responsible for training and capacity building facilitation for all Government Entities.

According to the PPDA Assessment report (2015), in the 70 Entities where training activities had been carried out, the findings revealed that although the results indicated an improvement in performance of the indicators, there was need for more capacity building in the areas of procurement planning and contracts management in which there was a decrease.

Professionalizing public procurement is the antidote to most of the challenges that public procurement faces. Specialized skills in criminal investigation, auditing, accounting and value-for-money procedures are critical prerequisites. Professionalization involves sharpening the skills of the targeted officials in their line of work; and instilling high ethical standards in all people handling public procurement. (PPDA Integrity survey report, 2015).

According to the PPDA Integrity survey report (2015), Skills development will require continuous technical training and mentoring of the personnel who are directly engaged in public procurement targeting staff of PDUs as well as support personnel in Audit and Investigation departments. The ethical aspect will involve PPDA encouraging and supporting

operationalization of the Institute of Procurement Professionals of Uganda; the national body for procurement professional to which all procurement staff in PDEs must be registered members. Such professional bodies have been instrumental in instilling and monitoring ethical conduct of its members. PPDA must ensure that all staffs of PDEs are not only technically qualified but also registered members of the professional body bringing together all procurement personnel in the country.

#### 2.4 Empirical Review

According to Raymond (2008) professionalism in public procurement relates not only to the levels of education and qualifications of the workforce but also to the professional approach in the conduct of business activities. If the workforce is not adequately educated in procurement matters, serious consequences; including, breaches of codes of conduct occur. According to Atkinson (2003) cited in Raymond(2008), there are approximately 500,000 professional purchasing people in the United States and only 10 per cent of these have been members of a professional body and the rest are not even aware that there are ethical and legal standards involved in procurement.

Raymond (2008) also linked lack of a high degree of professionalism in public procurement to corruption, which ultimately impedes compliance. The procurement officers must be trained and aware about all regulations in relation to procurement and related procedures (Molden and Hui, 2011). Rossi, (2010) asserts that ethical code is not only a deterrent of incorrect behaviour but also an enabler for all members of the organisation to safeguard the ethical legacy of the firm.

In Uganda, the PPDA Audit Report (2008) revealed that lack of professionalism was high amongst public procurement officers. This position is further confirmed by Basheka and

Mugabira (2008) who state that the level of professionalism in public procurement in Uganda is low or non-existent.

The findings of Basheka and Mugabira (2008) paint a picture of sufficient progress made to enhance professionalism in the public procurement sector in Uganda and is measured at least in the number of people with procurement qualifications managing the procurement function. 94% of the respondents in their study had undergone in-service training by PPDA and it was considered beneficial in strengthening the procurement and disposal unit. Consequently, De Boer and Telgen (1998) also attributed non-compliance in public procurement to lack of purchasing professionalism in the public sector. They argue that another cause of non-compliance is lack of proper staff training. The requirements to educate professionals and equip them with new and higher-level skills have consequently become urgent (Sauber et al, 2008). A skill is the ability either to perform some specific behavioral task or the ability to perform some specific cognitive process that is related to some particular task (Peterson and Van Fleet, 2004). From the analysis of Ayitey (2012), only 2% of respondent held qualifications in procurement. Though most of these procurement practitioners had been given short training (1-3 days), this had little impact on the procurement activities in the region. The training periods were too short and highly theoretical. It is important to have an institutionalized, sustained procurement training programme, so that staff receive training upon induction as well as, periodically, throughout their careers, with updating of skills and increased professionalism being the purpose of such on-going training, need for strengthening staff skills and expertise to be identified, as well as areas of the procurement system that need strengthening to be identified, and bolstered; verification of personnel who meet the qualification requirements and recognition to staff on their expertise and achievements. (Kalinzi, 2014). Wanyonyi and Muturi (2015), established from the results of the

study that competency of staff/employees affects positively the performance of procurement functions in the public technical training institutions in Kisumu county, Kenya. A survey of selected districts in Uganda revealed that there is still a loophole with attaining higher levels of Professionalism, where the indicators used to gauge this are still lacking and skills required for full attainment are not well developed among stakeholders. (Kalinzi, 2014).

## 2.5 Synthesis of the literature review

Although earlier authors and scholars have written and documented a lot of literature relating to capacity building and professionalism in public procurement, the following gaps were found existing within the reviewed literature. Most of the reviewed literature has been done on other regions and little has been done in Uganda and how capacity building affects professionalism in Uganda remains a big concern of this study. Most of the research also recommends training to achieve procurement professionalism, with limited research on whether professionalism is actually achieved with implementation of training. This research therefore will act as source of future reference to all studies related to procurement capacity building and professionalism of public procurement in Uganda. There is limited research carried out on how public procurement capacity building contributes to compliance with the procedures, policies and ethics of public procurement within Uganda. This study therefore sought to bridge this knowledge gap by studying the status of procurement capacity building in UEDCL and to generate consideration of positive actions to advance and maintain procurement professionalism.

Capacity building is treated as part and parcel of professionalism, yet professionalism goes beyond qualifications and training to compliance with laws, policies, procedures and ethics. Literature and documentation is needed to clearly link capacity building and professionalism and the necessary policies towards the improvement of capacity building to achieve professionalism. None of the literature reviewed has examined the relationship between capacity building and professionalism at UEDCL. The study will therefore address the knowledge gap and contribute to the available remedies on relationship between capacity building and professionalism.

#### **CHAPTER THREE**

#### **METHODOLOGY**

#### 3.1 Introduction

In addition to the introduction, this chapter contains the approach and procedure that will guide the study and contains the research design, the study population, determination of sample size and procedure of sample selection. It also addresses data collection methods and instruments, explaining the ethical considerations as well as data quality control ending with data processing and analysis. Ahuja (2001) defines Methodology as the procedure for carrying out the research, which elaborates techniques and strategies for obtaining valid information and is concerned with how knowledge is built by providing the description, explanation and justification of methods (p.41) and the process of handling data for a study.

## 3.2 Research Design

A research design can be regarded as an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevancy with the research purpose. It will be the conceptual structure within which research is conducted. A research design is defined as the scheme, outline or plan that is used to generate answers to the research problems. (Orodho, 2000). According to Kothari (2003), a research design constitutes the blueprint for collection, measurement and analysis of data (Kothari, 2003). Research design refers to the method used to carry out research.

This study will adopt a descriptive survey research design. A descriptive research design is defined as a process of collecting data in order to test hypotheses or to answer questions concerning the current state of the subjects in the study (Strauss and Corbin, 1994). In a descriptive research, the study variables, that is independent and dependent variables are measured at the same point in time and this will enable description as well as comparison of various factors associated with the study (Bhattacherjee, 2012). Bhattacherjie (2012) asserts that survey enhance measurement of a wide variety of unobservable data such as participants' preferences, traits and attitudes; are ideal for collecting data from large populations that are not easy to directly observe and, they use questionnaires which are usually preferred by respondents, due to their unobstructive nature and the ability to be filled at one's convenience. This will further help the researcher to ensure that people's views and opinions are sought and described accordingly to establish how capacity building affects professionalism. The study will use a descriptive survey research design because the study intends to pick only representative sample elements of the study population.

The study will employ both qualitative and quantitative approaches to solicit information from respondents. Mixed method approach also called methodological pluralisms is where the researcher combines quantitative and qualitative research techniques, methods, approaches, concepts or language in a single study to understand the research problem. Quantitative research employs numerical indicators to ascertain the relative size of a particular phenomenon and involves counting and measuring events as well as performing the statistical analysis of a body of numerical data. (Smith, 1998). Qualitative approaches allow a researcher to solicit information

that cannot be expressed in textual format, makes it possible to obtain non-numerical information about the phenomenon under study to aid establish patterns, trends and relationships from the information gathered and provides opportunity for the researcher to interact with the research subjects in their own language and on their own terms. (Kirk and Miller, 1986.)

#### 3.3 Study Population

The study will target members of staff involved in the public procurement process at Uganda Electricity and Distribution Company Limited.

## 3.4 Determination of sample size

It is practically impossible to get data from an entire population (Sekaran, 2003). It is better to use a sample. Ahuja (2001) identified a sample as a portion of people from a larger population. Sampling is the procedure a researcher uses to gather people, places or things to study. It was the process of selecting a number of individuals or objects from the population such that the selected group contains elements representative of the characteristics found in the entire group (Orodho & Kombo, 2002). Sampling is the process of selecting some part of the aggregate or totality on the basis of which a judgment or inference about the aggregate or totality is made. Sampling strategy should stem right from the conceptual framework: be able to generate a thorough database on the phenomena under study, allow the possibility of drawing clear inferences and credible explanations; be ethical and feasible. A sample size of 10 respondents will be determined using statistical tables of (Krejcie & Morgan, 1970) as cited by Amin (2005). These will include various categories as specified in **Table 1** below:

Table 1: Research respondents by category and sample

No.	Category of respondents	(N)	(S)	Sampling technique
1	Accounting Officer	1	1	Purposive sampling
2	Members of the Procurement and Disposal Unit	1	1	Purposive sampling
3	Members of Contracts Committee	3	3	Purposive sampling
4	Members of the User Department	5	5	Random sampling
4	Total	10	10	

**Key:** *N* – Population Size, *S* – Recommended Sample Population (*Krejcie & Morgan, 1970*).

The researcher will select 1 Accounting Officer 1 member of the Procurement and Disposal Unit, 3 members of the Contracts Committee and 5 members of the User Department.

## 3.5 Sampling Techniques and Procedure

The researcher shall employ two sampling techniques: Random sampling and purposive sampling. Random sampling is a strategy that adds credibility to a sample when the potential purposeful sample is larger than one can handle whereby it uses small sample sizes, thus the goal is credibility, not representativeness or the ability to generalize (Patton, 2001). Random sampling also known as probability or chance sampling offers all units in the population equal chances of inclusion in the sample and ensures the law of statistical regularity which states that if on average, the sample chosen is random, it will have the same composition, and characteristics as the universe population. (Kothari, 2004). Random Sampling will be used to select the members of the user department to be interviewed. Purposive sampling technique on the other hand will be used to select the Accounting Officer, officials of the Contracts Committee, and official of the Procuring and disposing Unit. Purposive sampling involves identifying and selecting individuals or groups of individuals that are knowledgeable about or experienced with a phenomenon of interest (Cresswell and Plano Clark, 2011).

#### 3.6 Data Collection methods

According to the UTAMU Guideline (2014), data collection methods include the specific techniques to be used in the collection of data. Method is the word used for data collection and analysis. This study will employ both the survey and document review data collection methods. A survey is where data is gathered just once on a sample to represent a population (Sekaran, 2003). Document review will supplement the survey is expected to provide the researcher with an opportunity to gain more contextual in-depth appreciation of the phenomena under study.

#### 3.7 Data collection instruments

Data collection instrument is a tool used to gather data for a study (Mbabali, 2015). To achieve the objectives of the study, the researcher shall apply a self-administered questionnaire and documentary review schedule.

## 3.7.1 Questionnaire

A questionnaire is a data collection instrument that is completed in writing by the respondents. (Bhattacherjie, 2012). Structured questionnaire with both open ended and closed-ended questions will be developed following recommended guidelines by various scholars that include Kothari (2005); Sekaran & Bougie (2010) and Saunders, et al (2009).

#### 3.7.2 Documentary review schedule

A documentary review schedule will be drawn in order to guide the researcher when reviewing documents to collect additional relevant information required for the study.

#### 3.8 Pre-testing (Validity and reliability of Instruments)

As observed by Vogt (2007), a number of studies have used this instrument and found both their reliability and validity values to be acceptable to the population being studied and in a different context thus recommends for testing the validity and reliability of the instruments. The instruments will be pre-tested to determine their validity and reliability.

Vogt (2007) defines validity as the truth or accuracy of the research (pp. 117). Saunders et al (2009) adds that it is the extent to which the data collection instrument measures as well as the appropriateness of the measures coming to accurate conclusions. Validity tests will be conducted

for content, criterion & construct validity test how well the instrument is representative, captures relationships between the variables as well as measures the concepts (Saunders et al, 2009); Vogt, 2007; and Sekaran & Bougie, 2010). The researcher will prepare research instruments and subject them to validity tests before finally subjecting them to the respondents. The draft questionnaire will be subjected to expert judgment including the supervisor of the researcher to verify the validity of the questions in line with Lynn (1986) where the researcher will use Content Validity Index (CVI). Bhattacherjie (2012) pointed out that CVI is concerned with assessing how well a set scale of items matches the relevant content domain of the construct that it intends to measure. The researcher will distribute an initial draft questionnaire to 5(five) subject matter specialists in public procurement as well as capacity building who will be requested to validate the contents of the draft tool whose results will be subjected to a CVI calculation whose formula is:

## CVI = Total Number of items rated by all respondents as valid

#### Total Number of items in the Instrument

The researcher will seek to ensure that the draft tool content complies with the recommended content validity index of 0.7 and above according to Amin, (2005) which qualifies the instrument for the study. Consideration of comments of the subject matter specialists on the contents of the instrument will be done and improvements made accordingly.

Ahuja (2001) and Amin (2005) define reliability to mean the ability of instruments to collect the same data consistently under similar conditions. Reliability is further defined by Vogt (2007) as the consistency of either measurement or design to give the same conclusions if used as different times or by different scholars. The first step in ensuring reliability is by providing clear

operational definitions of the variables under study. Thereafter, upon establishing the mentioned CVI, the researcher shall clean the draft questionnaire and will pretest it on ten respondents using the "test-retest" technique with a time frame of four weeks between the testing and re-testing. This will facilitate the easy understanding of the tool by the proposed respondents in line with the assertion by Mugenda and Mugenda (1999) and will enable the researcher establish if the tool will be able to solicit similar responses at different times (Amin, 2005) thus proving reliability. From this, the researcher will be able to make improvements on the tools (Bhattacherjie, 2012) thus improving reliability.

Thereafter, internal consistency (how items correlate amongst themselves) will be measured through internal consistency reliability (Sekaran & Bougie, 2010) as well as split-half reliability using Cronbach's alpha, basing on the fact that the questionnaire will have closed ended question, which will use a Likert scale as indicated below.

**Table 2: showing the Likert scale** 

5	4	3	2	1
Strongly agree	Agree	Not sure	Disagree	Strongly disagree

A reliability coefficient demonstrates whether the test designer was correct in expecting a certain collection of items to yield interpretable statements about individual difference and that if a test has substantial internal consistency, it is interpretable (Cronbach, 1951). The formula for Cronbach's alpha to be used is as follows:

Cronbach's alpha = 
$$\begin{bmatrix} n \\ sD^2 - \sum variance \\ SD^2 \end{bmatrix}$$

Where n = Number of items on the test

SD = The standard deviation for the set of test scores, and

 $\sum$ Variance = Summation of the variances of the scores for each of the individual item on the test

It is important for researchers to establish the relationships between the construct of interest and other related constructs or variables (Cronbach & Meehl, 1955) which empirical evidence of interrelations among constructs provides a means for establishing and validating theories in social sciences (Yang, 2003). According to Gravetter & Forzano (2012), Cronbach's Alpha produces values n = between 0 and 1.00 with the higher value indicating higher degree of internal consistency and reliability, yet Nunnally (1978) recommended minimum Cronbach's alpha of 0.7 which will be the targeted minimum by the researcher.

#### 3.9 Procedure of data collection

The researcher will seek approval or clearance from the School of Business and Management of Uganda Technology and Management University (UTAMU) to ensure that the ethical guidelines are followed throughout the data collection process. Upon receiving the clearance letter as well as a letter to introduce the researcher to the Government Entities, the researcher shall seek acceptance of the management and leadership of UEDCL to access and interact with proposed respondents during work hours. Each questionnaire will contain briefly the objectives of the study, request to fill the questionnaires and assurance of confidentiality of information provided that the study findings will be used for academic purposes only and necessary corrective measures in public procurement. The researcher shall at a later date collect the filled questionnaires and verify the completeness of responses therein. The researcher will also review the selected documents to search for data to support answering the research questions.

## 3.10 Data Analysis

Mbaaga (2000) states that data analysis is the process of bringing order, structure and meaning to the data gathered to create information out of it. The findings of the study will be analyzed using both quantitative and qualitative methods. This will involve uncovering structures, extracting important variables, detecting any irregularity and testing any assumptions (Kombo & Tromp, 2006). The researcher will further use triangulation method of analysis so as to come up with appropriate conclusions and recommendations.

## 3.10.1 Quantitative data analysis

The quantitative data analysis will consist of numerical values from which descriptions such as mean and standard deviations will be made (Kombo & Tromp, 2006). The quantitative data gathered will be organized, numbered and coded then entered using Statistical Package for Social Scientists (SPSS) to derive computed variables and will adopt the significance level of 1% while calculating the correlations. It is important however to note that the correlation of variables does not suggest or prove causation as "two casually unrelated variables can be correlated because they relate to a third variable" (Hussey & Hussey, 1997). Regression analysis which is "used when the researcher is interested in finding out whether an independent variable predicts a given dependent variable" (Mugenda & Mugenda, 1999) will be used to establish which of the procurement capacity building dimensions is more responsible for public procurement professionalism. The researcher will use both descriptive and inferential statistics to analyze data.

#### 3.10.2 Qualitative data analysis

This will involve cleaning up of data from the questionnaires categorizing them into themes and patterns and making a content analysis to determine the adequacy of the information credibility, usefulness and consistency (Mugenda & Mugenda, 1999). Data will be analyzed before, during and after data collection and the tentative themes will be defined in a manner that will enable provision of answers to the research questions. This process shall be concluded with writing up summaries of observations. The process is expected to be iterative and will thus involve moving ahead as well as back to steps already covered.

#### 3.11 Measurement of variables

By measurement, we refer to the formulae or scale that will be used in the study in relation to the variables (Kothari, 2004). The study variables will be measured using nominal and ordinal types of measurements. The questionnaires specifically for respondents will be measured on a five interval Likert Scale, the level of agreement will be ranked as strongly agree, which will reflect more agreement than just agreement or strongly disagree compared to just disagree. Ordinal Scale as measurement of variables will not only categorize the elements being measured but also rank them into some order. The numbers in the ordinal scale will represent relative position or order among the variables (Mugenda & Mugenda, 1999); (Amin, 2005). The nominal scale of measurement will be applied to cases which may have some common characteristics such as sex, age, employment title among others and will mainly help the researcher in preparation and presentation of descriptive findings. In nominal measurement of variables, numbers will be assigned for purposes of identification, but will not be allowed for comparison of the variables to

be measured. On the other hand, interval scales of measurement will be used to capture personal data of respondents.

#### REFERENCES

- Afonso, A., Schuknecht, L. & Tanzi, V. (2005). Public Section efficiency: an international comparison. *Public Choice*, 12(3), 321-347.
- African Peer Review Mechanism Country Review (APRM) Report (2009).
- Agaba, E. & Shipman, N. (2007). Public Procurement Reform in developing countries. The Ugandan Experience. In G.Piga & K.V. Thai. *Admiring Public Procurement Practices, Innovations and Knowledge sharing*. 375–391.
- Akech, J.M.M. (2005). Development Partners and Governance of Public Procurement in Kenya: enhancing Democracy in the Administration of aid. *International Law and Politics*. 37(4). 829-868.
- Alfresco (2009). The importance of records management within a Governance, retention and compliance alfresco White paper Series.
- Amundsen, I. (1999). *Political Corruption: an introduction to the issues*. WP 1999:7, (MI) Bergen, Norway: Chr. Michelsen Institute.
- Appelbaum, D. & Lawton, S.V. (1990). *Ethics and the Profession*. Englewood Cliffs, NJ: Prentice Hall.
- Arrowsmith, S., Linarelli, J. & Wallace, D. (2000). *Regulating Public Procurement: National and International perspectives*. The Hague, the Netherlands, Kluwer Law International.
- Asare, T, Abdoulage, K, Leautier F & Sithable, M. (2009). Trends in Public Procurement in Africa: Opportunities and challenges of capacity building interventions
- Atkinson, W. (2003). New buying tools present different ethical challenges. *Purchasing*, 132(4), 27-30.

- Ayitey, F. K. (2012). Assessing the level of compliance with the Public Procurement Act 2003, (Act 663) in Public Entities in Ashanti Region of Ghana. (Masters' dissertation, Kwame Nkrumah University of Science and Technology)
- Basheka, C.B. (2008). Re-orienting the African Public Sector through effective public Procurement systems: A theoretical perspective. *Paper presented at the International Association of Schools and Institutions of Administration, held from 14<sup>th</sup> -18<sup>th</sup> July 2008, Kampala, Uganda.*
- Basheka, B.C & Mugabira M.I. (2008). Measuring Professionalism Variables and their implication to Procurement Outcomes in Uganda. The 3<sup>rd</sup> International Public Procurement Conference Proceedings.
- Basheka, B.C. & Bisangabasaija, E. (2010). Determinants of unethical Public Procurement in Local Government systems of Uganda: a case study. *Journal of Procurement Management*, 3(1), 91-104.
- Bogdan, M.J and Biken (2003). The role of Financial Journalists. *Fordham Journal of corporate* and Financial Law. 12. 323-336.
- Coe, C.K. (1989). Public Financial Management. Englewood Cliffs, N.J. Prentice Hall.
- De Boer, L. & Telgen, J. (1998). Purchasing Practice in Dutch Municipalities. *International Journal of Purchasing and Material Management*, 34(2), 31-36.
- Defee, C.C., William, B., Randall, W.S. & Thomas, R. (2010). An inventory of theory in logistics and SCM research. *The international Journal of Logistics Management*, 21(3), 404-489.

- Donahue, J.E. (1989). *The privatization decision*. Public ends, Private means, basic books, NewYork, NY Erridge, A. & Greer, J. (2002) in Partnerships and Public Procurement: building social capital through supply relations. *Public Administration*, 80(3), 505-522.
- Gammelgaard, B. & Larson, P.D. (2001). Logistics Skills and Competencies for supply Chain Management. *Journal of business logistics*. 22(2), 27-50.
- Government of Uganda (2014). *The Public Procurement and Disposal of Public Assets*\*Regulations, 2014. UPPC, Entebbe.
- Government of Uganda (2014). *The Public Procurement and Disposal of Public Assets Act,* 2003, UPPC, Entebbe.
- Guinipero, L.C., & Pearcy, D.H. (2000). World-class Purchasing skills: an empirical investigation. *Journal of Supply Chain Management*. 36(3), 4-13.
- Inspectorate of Government (2005). Corruption in Public Procurement the Inspectorate of Government Perspective. The New Vision, 3<sup>rd</sup> November 2005.
- Kabateraine, D. (2012). Historical perspective of procurement reforms in Uganda. *Paper presented at the PPDA symposium on the review of procurement reforms held from 19<sup>th</sup> 20<sup>th</sup> September, 2012, Munyonyo, Uganda.*
- Kalinzi, C. (2014). Level of Professionalism in Public Procurement: A survey of selected Districts in Uganda. *Net Journal of Business Management*, 2(1), 1-7.
- Kamau, P. (2003). Public Procurement lessons for Kenya, Tanzania and Uganda. *OECD working Paper No. 208.* OECD Development Centre.
- Kanjugu, F.C. (2008). Public Institutional requirements and adherence to tender regulations in Zambia. (Masters' dissertation, Copperbelt University)

- Kobusingye, S. (2015). Factors influencing the implementation of Capacity Building initiatives in National Information Technology Authority in Uganda, Masters' dissertation, Uganda Technology and Management University.
- Kothari, C.R. (2004). *Research Methodology: Methods and Techniques*, 2<sup>nd</sup> Edition, Wishira Prakashan.
- Krejcie, R.V & Morgan, D.W. (1970). *Determining sample size for research activities*. Educational and Psychological measurement. 607-610.
- Lysons, K. (2000). *Purchasing and supply Chain Management, London*, UK, Financial Times, Prentice Hall, Pearson Education Ltd.
- Lysons, K. & Gillingham, M. (2005). *Purchasing and Supply Chain Management*, 7<sup>th</sup> Edition, London, UK. Financial Times, Prentice Hall.
- Mbabali, R.K. (2015). Evaluation Capacity Development Processes and Organisational

  Learning in Ugandan Municipal Local Governments. Masters' dissertation, Uganda

  Technology and Management University.
- Mentzer, J.T., Stank, T.P. & Esper, T.L. (2008). Supply chain Management and its relationship to logistics. Marketing, Production and Operations Management. *Journal of business logistics*. 29(1), 31-46.
- Muendo, (2006). Challenges facing the implementation of Sustainable Procurement in the Public Sector: a case of NAWASCO. Masters' dissertation. University of Nairobi.
- Mugenda, O.M. & Mugenda, A.G (1999). Research Methods, Quantitative and Qualitative Approaches. Nairobi, Kenya: African Centre for Technological Studies.
- Muturi, (2007). Procurement Practices in the Public Sector: A survey of Kenya Pipeline Company. Masters' dissertation. University of Nairobi.

- Ndubi, C.W. & Okello, B. (2015). Effect of staff training on level of compliance to Public Procurement system in parastatals in Kenya. *International Journal of Economics, Commerce and Management*, 3(6), 613-626.
- Raymond, J. (2008). Benchmarking in Public Procurement. *Benchmarking: An International Journal*. 15(6). 782-793.
- Rossi, C.L. (2010). Compliance: an overlooked business strategy. *International Journal of Social Economics*. 37(10). 816-831.
- Scott, W.R. (2004). *Institutional Theory*. Encyclopedia Theory, Thousand Oak. CA.
- Strauss, A. and Corbin, J. (1994). Grounded theory methodology: an overview in Denzin, N.K. & Lincoln, Y.S., Handbook of Qualitative Research, Sage, London. 1-18.
- Public Procurement and Disposal of Public Assets Authority (2015). *Impact Assessment of capacity building activities*. Government of Uganda.
- Public Procurement and Disposal of Public Assets Authority (2015). *Annual Procurement and Disposal Audit Report on procurements and disposals*. Government of Uganda.
- Public Procurement and Disposal of Public Assets Authority (2016). 3<sup>rd</sup> Integrity Survey Report.

  Government of Uganda.
- Public Procurement and Disposal of Public Assets Authority (2016). PPDA Procurement Performance Measurement system key findings for FY15/16. *Paper presented to PPDA management on 4<sup>th</sup> October 2016* at Kampala, Uganda.
- Tukamuhabwa, B.R. (2013). Antecedents and consequences of Public Procurement Non-compliance behavior. *Journal of Economics and behavioural studies*. 4(1), 34-46.
- Wanyama, S. (2016). History and Evolution of Public Procurement Reforms in Uganda. In Public Procurement Reform and Governance in Africa. S.N. Nyeck (Ed.). Pelgrave

Macmillan, 203-231. Retrieved from

https://www.researchgate.net/publication/304621167.

World Bank & African Development Bank (1999). Monitoring and Evaluation: Capacity

Development in Africa. Precis. (183). 1-5.

**APPENDICES** 

Appendix 1: Questionnaire

Research Topic: Public procurement capacity building and professionalism of public

procurement in Uganda – Survey

Dear Sir / Madam,

I am a student of Uganda Technology and Management University (UTAMU), Kampala

pursuing a Masters' Degree in Public Administration and Management (Public Procurement

Option). The questionnaire is intended to help the researcher get information on PUBLIC

PROCUREMENT CAPACITY BUILDING AND PROFESSIONALISM OF PUBLIC

PROCURMENT. The purpose of the study is purely academic and information given will be

treated with the highest degree of confidence. You have been selected as a key respondent for

this study. Kindly, complete the questionnaire to enable the researcher complete the study.

Please tick the answer which represents your opinion on the subject.

I appreciate your participation in this effort.

Thank you,

Sheila Nakiwala

۷I

## Researcher

### B

BA	CKGROUND INFORMA	ATION	
Ple	ase fill in/tick the most ap	propriate option	
1.	What is your job title		
2.	What is the nature of you	ır PDE?	
	Local government	Central	
		Government	

3. What is your gender?

Male	Female

4. What is your age group?

18-24	25-31	32-38 years	39-45	46-52years	53-59
years	years		years		years

		1	<b>'</b>		1	
What is yo	ur level of	education?	•			
Diploma	Degree	Masters	Other	, please	specify	•••••
What is yo	ur profess	ional traini	ng?			
Accounta	ncy Pro	curement	Social Sci	ences	Marketing	Others, please
						specify
Which Pro	ofessional o	qualification	ı do you ho	old?		
		qualification			Others, pl	ease
						ease
Which Pro						

8. How long have you worked in this field?

0-1 years	2-3 years	4-5 years	6 – 7 years

9. What is the size of your organization in terms of employees (how many employees?)

Less than 50	Between 50 and 100	Between 100 and 200	Over 200

10. How long has your organization been in existence?

Less than 5	Between 5 –	Between 10	Between 15 –	More than 20
years	10 years	– 15years	20 years	years

### **GUIDING NOTES TO THE RESPONDENT**

Please respond to the following questions in regard to your organization in terms of how it really is in the organization, not how you would prefer it to be. All your responses will remain strictly anonymous and confidential. Respond by indicating (a tick) the extent to which you agree or disagree, using the scale below;

Strongly	Disagree (DA)	Not sure (NS)	Agree (A)	Strongly Agree (SA)
Disagree (SDA)				
1	2	3	4	5

	Professionalism	1	2	3	4	5
1	I comply with the laws of public					
	procurement because am aware					
	of the law as a result of my					
	training					
3	I comply with the law of public					
	procurement because non-					
	compliance will affect my					
	employment rights					
4	Staff personal behaviour affects					
	professional life					
5	If the workforce is trained in					
	procurement, their level of					
	compliance is improved					
6	All members involved in					
	procurement don't have the					

	appropriate training which has			
	affected the level of compliance to			
	the procurement procedure			
11	I attend procurement capacity			
	building initiatives of PPDA			
12	Procurement capacity building			
	conducted by PPDA is relevant to			
	achievement of Public			
	procurement professionalism			

# Appendix 2: Work plan and Timeframe

Activity	Duration (days/weeks/months)
Proposal development	November to December, 2016
Proposal defense	January 2017
Data collection	February 2017 to March, 2017

## APPENDIX 3: Krejcie & Morgan Table for determining sample size

Preliminary analysis	March, 2017
Writing phase	March to April, 2017
Dissertation defense	April, 2017
Dissertation correction	April, 2017
Final submission	May, 2017

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368

140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note: N is population size. S is sample size