

**INFLUENCE OF COMPETITIVE PROCUREMENT PRACTICES ON
SERVICE DELIVERY IN PUBLIC HOSPITALS IN NAKURU KENYA
(A Survey of Public Hospitals in Nakuru County)**

GITURU NANCY NJOKI

**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF
ENTREPRENEURSHIP AND PROCUREMENT IN THE SCHOOL OF
HUMAN RESOURCE DEVELOPMENT IN PARTIAL FULFILLMENT
OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF
MASTER OF SCIENCE IN PROCUREMENT AND CONTRACT
MANAGEMENT OF JOMO KENYATTA UNIVERSITY
OF AGRICULTURE AND TECHNOLOGY**

MAY, 2018

DECLARATION

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

GITURU NANCY NJOKI

HD322-C007-7784/15

Sign.....Date.....

This research project has been submitted for examination with my approval as university supervisor

GEORGE KIMITI

Lecturer JKUAT

Sign.....Date.....

DEDICATION

I dedicate this work to my parents Mr. and Mrs. Pius Gituru for the sacrifice they made for me to complete this project. Their love, care, concern, support, encouragement and enthusiasm inspired me to achieve this goal.

ACKNOWLEDGEMENT

I take this opportunity to thank God for good health and for bringing me this far. I also want to extend special gratitude to my supervisor, George Kimiti for the guidance and patience in reading, correcting, re-reading and refining this work.

ABSTRACT

The use of different procurement contracting practices can negatively or positively influence service delivery in government owned entities. In competitive procurement contracting the provision of public services or products is awarded competitively. Competitive contracting has been used to ensure that goods and services of a defined quantity and quality are produced for the lowest possible cost. The success or failure of any alternative service delivery depends on how well governments can manage the entire contract process, from accessing the feasibility of contracting through implementation to monitoring and evaluation. The purpose of the study was an assessment of influence of competitive procurement practices on service delivery in public hospitals in Nakuru county Kenya. Specifically the study sought to establish bids placing, evaluation criteria suppliers' capacity and technology in bidding process on service delivery in public hospitals in Nakuru County Kenya. The target population was medical officer in charge of hospitals in Nakuru County, procurement officers and department head from user departments in sub-county hospital and referral hospital in Nakuru County. The study adopted census technique to incorporate all the targeted respondents, the study size was 5 procurement officers, 63 head of departments from user departments and 12 medical officers in charge of the selected hospitals. Structured questionnaire was used to collect the primary data desirable for the study. Qualitative data was analysed by use of content analysis and presented in a prose form. Quantitative data was analyzed by use of descriptive and inferential statistics through the help of Statistical Package for Social Sciences (SPSS). Descriptive statistics included percentages, frequencies, measures of central tendencies (mean) and measures of dispersion (standard deviation). Data was presented in form of tables. The results indicate that bid placing ($R = 0.758$), evaluation criteria ($R = 0.477$), supplier capacity ($R = 0.478$) and technology ($R = 0.649$) has a positive correlation with service delivery. Therefore, the study concludes that bid placing, evaluation criteria, supplier capacity and technology have a positive influence on service delivery. The study recommends that public hospitals should formulate more policies to emphasize on the use of competitive procurement contracting practices as they will help to reduce corruption, ensure quality and low cost as well as improve service delivery. Public hospitals should only be evaluated in terms of the criteria stipulated in the bidding documents. Amending the evaluation criteria after closure of the bids should not be allowed, as this would jeopardize the fairness of the system. The study recommended that a replication of the above study should be carried out in another county in order to establish whether similar findings will be obtained.

TABLE OF CONTENTS

DECLARATION	II
DEDICATION	III
ACKNOWLEDGEMENT	IV
ABSTRACT	V
TABLE OF CONTENTS	VI
LIST OF FIGURES	VIII
LIST OF TABLES	IX
LIST OF APPENDICES	X
LIST OF ACRONYMS	XI
DEFINITION OF TERMS	XII
CHAPTER ONE:INTRODUCTION	1
1.1 Background of the study	1
1.2 Statement of the Problem.....	6
1.3 Objectives of the Study	7
1.4 Research Hypothesis	8
1.5 Justification of the study	8
1.6 Scope of the study	8
1.7 Limitations of the Study.....	9
CHAPTER TWO:LITERATURE REVIEW	10
2.1 Introduction.....	10
2.2 Theoretical Review	10
2.3 Conceptual Framework.....	12
2.4 Empirical Review.....	12
2.5 Critique of Existing Literature Relevant to the Study	22
2.6 Summary of the Literature	22
2.7 Research Gaps.....	23
CHAPTER THREE:RESEARCH METHODOLOGY	24
3.1 Introduction.....	24
3.2 Research Design.....	24
3.3Target Population.....	24
3.4 Census Design.....	24
3.5Research Instruments	25

3.6 Pilot Test	25
3.7 Data Collection Procedures.....	26
3.8 Data Processing and Analysis	27
CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND INTERPRETATIONS	28
4.1 Introduction.....	28
4.2 Response Rate.....	28
4.3 Demographic Information.....	28
4.4 Descriptive Statistics.....	30
4.5 Inferential Statistics	37
4.6 Hypothesis Test.....	39
4.7 Multiple Regression	43
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	47
5.1 Introduction.....	47
5.2 Summary of Major Findings	47
5.3 Conclusions.....	49
5.4 Recommendations.....	50
REFERENCES	52
APPENDICES	60
APPENDIX I: LETTER OF INTRODUCTION	60
APPENDIX II: RESEARCH QUESTIONNAIRE	61
APPENDIX III: LIST OF HOSPITALS IN NAKURU COUNTY	65

LIST OF FIGURES

Figure 2.1: Conceptual Framework	12
---	----

LIST OF TABLES

Table 3. 1: Reliability Statistics	27
Table 4.1: Gender representation of the study subjects	28
Table 4.2: Respondents' Highest Level of Education.....	29
Table 4.3: Duration Worked in the Current Organization	30
Table 4.4: Bids placing on service delivery in public hospitals	31
Table 4.5: Evaluation criteria on service delivery in public hospitals	32
Table 4.6: Supplier capacity on service delivery in public hospitals.....	34
Table 4.7: Technology on service delivery in public hospitals.....	35
Table 4.8: Service delivery in public hospitals	36
Table 4.9: Bids placing and service delivery	37
Table 4.10: Evaluation criteria and service delivery.....	38
Table 4.11: Suppliers capacity and Service Delivery	38
Table 4.12: Technology and Service Delivery.....	39
Table 4.13: Model Summary on Bids Placing and Service Delivery	39
Table 4.14: Anova on Bids Placing and Service Delivery.....	40
Table 4.15: Model Summary on Evaluation Criteria and Service Delivery	41
Table 4. 16: Anova on Evaluation Criteria and Service Delivery	41
Table 4.17: Model Summary on Suppliers capacity and Service Delivery	42
Table 4.18: Anova on Suppliers capacity and Service Delivery.....	42
Table 4.19: Model Summary on Technology and Service Delivery.....	43
Table 4.20: Anova on Technology and Service Delivery.....	43
Table 4.21: Model Summary	44
Table 4. 22: Regression Coefficients	45

LIST OF APPENDICES

Appendix I: Letter of Introduction.....	60
Appendix II: Research Questionnaire.....	61
Appendix V: List of Public Hospitals in Nakuru County.....	72

LIST OF ACRONYMS

CIPS	Certified Institute of Purchasing and Supplies
CMKN	Contract Monitoring Kenya Network
DA	District Assemblies
MDA	Ministries, Departments and Agencies
MOH	Ministry of Health
OAG	Office of Auditor General
PPADA	Public Procurement and Asset Disposal Act,2015
PPOA	Public Procurement Oversight Authority
PUFMARP	Public Financial Management Reform Programme
ROK	Republic of Kenya

DEFINITION OF TERMS

Bidding	Procurement Procedure whereby potential Suppliers are invited to make a firm and unequivocal offer on the price and terms in which they will supply specified goods, Services or works which on acceptance shall be the basis of a subsequent contract (Lysons & Farrington, 2006).
Competitive contracting	Competitive contracting is the provision of a public service through a competitively awarded contract (Ware & Kynoch, 2013).
Evaluation criteria	The process that determines the actual quality, reliability, delivery, etc. of the goods, works and services (Maurer, 2014).
Procurement Contract	A procurement contract is an agreement in which a buyer agrees to acquire goods or services from a seller in exchange for consideration (Chesang, 2013)
Supplier Capacity	It is the ability of the contractors to perform a task in terms of financial and technical ability (Koushki, 2005).
Technology in bidding Process.	It is said to be a change of system or way of operation from inefficient or manual to automatic operations (Campbell, 2005).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Procurement contracting practices include non-competitive contracting, competitive contracting, negotiated contracting and relational contracting. In competitive procurement contracting the provision of public services or products is awarded competitively (Chesang, 2013). Government institutions seek competitive bids to provide particular goods and services. In relation to non-competitive contracting the contracting process is without choices from market competition and candidates are not chosen through competitive processes (Agagu, 2008).

Competitive contracting is the provision of a public service through a competitively awarded contract. A competitive contract is any contract that opens a bidding process, or competition, wherein the winning entity is awarded the contract. These types of contracts are usually awarded by public agencies to ensure a fair competitive process between the applicants for the job in question. A competitive contract opens the field for many different businesses to try and win the work offered in the contract. Competitive contracts also give the entity awarding the contract an opportunity to review many different businesses and select the one it feels most appropriately suits the particular project needs. The public agency seeks competitive bids to provide a particular public service.

The public agency establishes quality and quantity specifications. The competitive market responds to the invitation of the public agency, and one or more producer is selected to provide a specific service for a period of time. Parkera and Hartley (2003) indicate that one of the main challenges facing procurement contracting practices in public institution is increase in corruption and collusion due to the use of non-competitive procedures. Other challenges include public-private contracting, uncontrolled agency costs, misaligned incentives, costs akin to negative externalities, market failures, lack of stakeholders involvement, compliance with best practices; top management support, quality of goods and services, professionalism or quality of procurement workforce (Ware & Kynoch, 2013).

In China, the contracting processes have evolved from a single-price criterion to multi-criteria that include price (cost), time, quality, etc. All tenders are assessed by a tender evaluation committee and the detailed tender evaluation criteria are prepared by this committee one day before the opening of the tenders, to avoid any unfairness in the tendering process. The selection of a best suitable company for the construction work is not based on the rule of “lowest price wins” but multi-criteria, including price, time, quality and construction plan and company’s reputation as well as proposed project team. (Jiangsu Provincial Construction Commission, 2013).

According to Zou (2014) the contractual arrangements in China fall into three broad categories depending upon the means of arriving at the contract sum, which are lump sum contract, measurement contract and cost reimbursement contract. Despite the major progress made to date, the Chinese project contracting still has a long way to go to match up with international best practice (Lee, 2014). There are a number of issues requiring Chinese Government departments’ urgent attention. The first issue is the contracting evaluation criteria. Research found that the current method is insensitive to an important criterion “bid price” and different cities were using different criteria with different components (Lai, 2014).

To ensure sanity and value for money in the public procurement landscape, the government of Ghana launched the Public Financial Management Reform Programme (PUFMARP). The purpose of the programme was to improve financial management in Ghana. PUFMARP identified weaknesses in the procurement system. Some of these weaknesses included: lack of comprehensive public procurement policy, lack of central body with technical expertise, absence of clearly defined roles and responsibilities for procurement entities. (Ameyaw, Mensah & Osei-Tutu 2012).

The Country Procurement Assessment Report of Ghana produced in 2013, revealed that most staff members of Ministries, Departments and Agencies (MDAs) and District Assemblies (DAs) responsible for procurement were not procurement-proficient, even though they have been trained. The report contended that application of the PPA and the Standard Tender and Contract Documents will not be successful without broad training and ‘refresher’ programmes for officials in charge of procurement. Similarly Forgor (2007) agrees that lack of proper training of managers on the procurement process is a challenge that confronts procurement reforms. This

supports the assertion that poor dissemination of procurement law is one of the challenges facing the smooth implementation of public procurement laws (Azeem, 2007). Ntayi (2009) observes that millions of dollars get wasted in Uganda due to inefficient and ineffective obstacles and challenges in the procurement process of which contract management is a part.

The Kenyan Government relies on contractors to take care of many of the logistics necessary to keep our government running smoothly. More so, many large public corporations and institutions in Kenya rely on procurement to access most of their products and services, through purchasing and sourcing as well as tendering and contracting. In Kenya in order to ensure fairness during the bidding process, the Government, through the Public Procurement Oversight Authority (PPOA) has established guidelines when selecting a contractor. These guidelines include the hiring of minority owned companies. The company has to have established Equal Opportunity hiring policies and must not have a history of unfair treatment of bidders (Fisher & Lovell 2009). The introduction of the public procurement and Asset Disposal Act (PPDA) of 2015 and the Procurement Regulations of 2015 and enactment of Public Procurement Oversight Authority (PPOA) have introduced new standards for contracting procedure in Kenya.

According to Contract Monitoring Kenya Network (CMKN) (2012), Kenya loses a lot of taxpayers' money to improper procurement practices, specifically because of poor contract management practices. This is common in its state corporations and some of the causes include corruption, litigations, contract cancellations and substandard service or product delivery.

1.1.2 Service Delivery

Quality service delivery as defined by International Organization for Standardization (ISO) is a relative concept and in most cases where inherent characteristic of a service meets the requirements of patient, then it can be rated as high in quality (Reinartz, 2004). Service industries like hospitals for example, experience of patients plays a crucial role in rating and assessment and ranking of quality of services offered in these facilities. Quality in health service comes in terms of newer technology, effective medication, and qualified staff to and adequate patient ratio, effectiveness, affordability an efficiency of service delivery (Tam, 2005). While technical quality in

health sector is defined primarily on the basis of the technical accuracy and effectiveness of the medical diagnoses and procedures or the conformance to professional specifications, functional quality is the manner in which health service is actually delivered to patients (Dean & Lang, 2008).

In Kenya, like most developing countries in Africa, premature deaths and preventable diseases still inflict a high toll in communities and its people. Inadequacy in access to basic health services is affecting distinct regions, areas, communities, and social groups in these countries. Most Public Hospitals in the recent past have witnessed employee dissatisfaction presented in terms of refusal to offer services due to failure of payment of dues, poor working environment, inadequate infrastructure and lack of commitment by the management to engage with employees. This gap in management of Public Hospitals has led to unwarranted suffering by the patients who peg their hopes on the services offered by these hospitals.

Management style therefore is important in service delivery in Public Hospitals and these calls for realistic view of the demands of employees as well as well being of the patients who rely on these services. The basic infrastructure require to achieve the best out of the Public Hospitals need to incorporate implementation of Information communication and technology. In many aspects, online services need to be utilized in admission, management and the process of discharge of patients in these facilities.

Kenyan Government made a Policy Framework on Health in 1994 to develop and manage health services. Ministry of Health then developed the Kenya Health Policy Framework Implementation Action Plan in 1996 and established the Health Sector Reform Secretariat in the same year under a Ministerial Reform Committee established in 1997 which was to spearhead and oversee the implementation process which were then aimed at responding to the constraints which included witnessed decline in health sector expenditure, evident inefficient utilization of resources, decision-making which was centralized, inequity of management information systems, health laws which were outdated, district level inadequate management skills, rising poverty levels, ballooning burden of disease, and a population which was rapidly growing (Muga, 2004).

Health is included in Vision 2030 as a social pillar in which the country's aim is to provide an efficient integrated and high quality affordable health care for all citizens

with a priority being given to preventive care at the community and household levels using a decentralized national health care system strategy. Challenges which are facing health are inadequate funding aimed at supporting planned and initiated activities, a low rate of births at health facilities despite high antenatal care coverage countrywide, HIV/ Aids pandemic ravaging communities and a higher poverty levels, inadequate and or uneven distribution of health care personnel, which hinders delivery of quality services, and poor health infrastructure, all of which are well outlined in the Vision 2030 (GoK, 2007), which is a blueprint for development in Kenya. Following devolution decision making and funding to the Counties which are entrenched in the Constitution of Kenya 2010 and Vision 2030, challenges will emerge which will threaten to cripple the already overstretched devolved health system.

1.1.3 Health Facilities in Kenya

The health system in Kenya is organized and implemented through a network of facilities organized in a pyramidal pattern. The network starts from dispensaries and health clinics/ posts at the bottom, up to the health centers, sub-district hospitals, district hospitals level 4, provincial general hospitals level 5 and at the apex there is the Kenyatta National Hospital. The Ministry of Health (MoH) is the major financier and provider of health care services in Kenya. Out of all the health facilities in the country, the MoH controls and runs about 52% while the private sector, the mission organizations and the Ministry of Local government runs the remaining 48%. The public sector controls about 79% of the health centers, 92% of the sub-health centers. Country Procurement Assessment Report (CPAR), prepared by a team of Government officials, World Bank and donor staff, and national consultants, reveals substantial inefficiency in public procurement and concludes that the principle of “value for money” is not achieved.

This is true for both governments financed and donor financed procurement. The main findings of the 2002 Country Portfolio Performance Review of World Bank projects also reviewed slow project implementation and disbursement among other factors due to, a large extent of inadequate procurement planning, non-transparent procurement procedures and poor contract management in 60% of the dispensaries. The NGO sector is dominant in health clinics, maternity and nursing homes

controlling 94% of the total while also controlling 86% of the medical centers in the country (CBS, 2004).

Kenya through the Ministry of Health has not been able to adequately ensure quality health service provision to the citizens over the years. Most public hospitals are under bad conditions (Kenya Health Policy, 2014); characterized by dilapidated facilities, obsolete medical equipment, inadequate drugs and low bed capacity in the wards. Patients suffer in grief, due to inadequate care from medical personnel who complain about insufficient medical equipment and low pay among other poor working conditions. These factors can be linked to the procurement practices employed in the respective public health facilities in question (MOH Survey, 2015).

1.1.4 Nakuru County Health Sector

Health facilities in Nakuru County are classified in tiers. Nakuru Teaching and Referral Hospital is the biggest health facility. It is estimated that the hospital receives approximately 2000 patients in the Out Patient Department, 40 in the Antenatal Clinic, 100 in the Family Planning Department and 80 HIV positive babies. Poor quality of service delivery at the health facilities led to the formation of the Quality Assurance Steering Committee in the year 2010 whose main objective was to ensure continuous delivery of quality service to the patients. In a survey carried out by the Kenya Anti-Corruption Commission of Kenya in 2010, it was revealed that even though the government agency for the supply of drugs (Kenya Anti-Corruption Commission, 2010).

Kenya Medical Supplies Agency (KEMSA), was availing drugs to the public hospitals, most patients were buying their own drugs and other items. Top among the items being bought included drugs at 52%, food and equipment at 16% each. This indicates that the quality of healthcare in these public institutions has greatly declined. The management of these institutions should seek for better ways of enhancing quality in service delivery (Kenya Anti-Corruption Commission, 2010).

1.2 Statement of the Problem

According to health sector performance report 2013 and 2014 health institutions are ailing from shortage of drugs or holding on expired drugs. Health Centres and dispensaries are hardly stocked with the recommended medicines. It indicates that high rate of expired drugs in dispensaries and other public hospitals indicates poor

planning and high wastage of public resources in the counties, thus affects efficient delivery of quality services. Procurement is an important part of efficient management and supply. An effective procurement process ensures the availability of the right Medicines in the right quantities, at right time for the right patient and at the right prices and at recognizable standards of quality (WHO, 2007). Like in the other parts of the country the health sector in Nakuru County has been facing numerous challenges under the devolved systems. With the introduction of county government the procurement procedures in hospitals has greatly changed. Unlike the previous system whereby KEMSA supplied drugs under the current system, health facilities are free to source for medical facilities from any other source. This has sometimes contributed to delay in delivery of drugs or in worst scenario compromise on the quality of drugs supplied. The procedure is quite tedious since the county government has to be involved in the whole procedure since it's the one which gives the authority to incur expenditure.

Various studies have been conducted on competitive contracting. Chesang (2013) did a study on public procurement Contracting practices policy and its effect on procurement performance in selected ministries headquarters in Nairobi County. .Mwangi (2014) conducted a study on the impact of public procurement contracting policy on teaching and learning in public secondary schools in Kahuro district. However, these studies were not specific on the type of procurement practice, therefore the study sought to establish the influence of competitive procurement practices on service delivery in public hospitals in Nakuru county Kenya hence the study.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was an assessment of influence of competitive procurement practices on service delivery in public hospitals in Nakuru county Kenya.

1.3.2 Specific Objectives

- i. To determine the influence of bids placing on service delivery in public hospitals in Nakuru County Kenya.

- ii. To find out the influence of evaluation criteria on service delivery in public hospitals in Nakuru County Kenya.
- iii. To establish the influence of suppliers capacity on service delivery in public hospitals in Nakuru County Kenya.
- iv. To assess the influence of technology in bidding process on service delivery in public hospitals in Nakuru County Kenya.

1.4 Research Hypothesis

H₀₁: Bids placing has no significant influence on service delivery in public hospitals in Nakuru County Kenya.

H₀₂: Evaluation criteria have no significant influence on service delivery in public hospitals in Nakuru County Kenya.

H₀₃: Suppliers capacity has no significant influence on service delivery in public hospitals in Nakuru County Kenya.

H₀₄: Technology in bidding process has no significant influence on service delivery in public hospitals in Nakuru County Kenya.

1.5 Justification of the Study

The findings of this study is important to the policy makers in the public health sector as it guides them in formulation of policies that advocate for competitive contracting. This study was initiated in order to find out how competitive contracting practices influence service delivery in Public Hospitals in Kenya. The study is also of help to officers in procurement department to know the right methods of rating and choosing suppliers in order to avoid delayed service delivery. The findings of this study increase the understanding and improve existing academic knowledge regarding contracting practices and their influence on service delivery in Public Hospitals. Policymakers and health practitioners also find the information useful in developing policies and procedures that guide this health process. The findings provide proper guiding framework for the development of infrastructures that ensures quality service delivery to patients and clients in Public Hospitals.

1.6 Scope of the Study

This study was confined to public hospital in Nakuru County Government and focused on influence of competitive contracting practices on service delivery in public hospitals in Kenya. This study was conducted through a survey study research design.

The target populations were medical officers in charge of health facilities, procurement officers and department heads from user departments in sub-county hospitals and referral hospital in Nakuru County. The study was carried out between February 2017 and November 2017. The approximate budget of the study was Ksh. 88,370

1.7 Limitations of the Study

The study faced diverse limitations such as the apathy of Hospital management in authorizing data collection in their institutions, the reluctance of the employees to fill in the questionnaires and the ability to have sufficient response rate after the potential respondents agreed to fill the questionnaires. The hospital manager's reluctance to authorize data collection was dealt with through assuring the management of minimal interference with the organization operational aspects. This was achieved through administering the questionnaires during their free time. In the context of the potential respondents' apathy to filling the questionnaires, the researcher addressed this apathy in different ways including obtaining of an official letter from the university detailing the collection purposes of the data as that of academic in nature. The respondents were issued with a consent statement that detailed their voluntary participation in the study

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction.

According to Bailey (2011), literature review is a summary of previous research on a topic. Literature review reviews scholarly courses, books, and some foundations pertinent to certain sections of research or interest. Within the review the author provides an explanation, critical evaluation and also a summary of every source, i.e. the assets as well as weaknesses. Literature review might recognize controversies or even gaps within topics and literature that requires further research. It focused on theoretical literature which is the diverse theories which reinforce the foundation of this research. The chapter further aims on empirical literature which discusses the diverse concepts connected to variables under study. It as well discusses conceptual framework which demonstrates the interrelationship between the variables and the indicators of each variable.

2.2 Theoretical Review

The theoretical framework introduces and describes the theory which explains why the research problem under study exists. Consists of concepts, together with their definitions, and existing theory/theories that are used for the particular study (Torraco, 2011).

2.2.1 Efficiency Theory

Richard Posner first laid the groundwork for efficiency theory in the 1970s. He argued for the "allocation of resources in which value is maximized." Efficiency theory assumes that parties value assets more or less correctly and that their transacting choices are motivated solely by wealth maximization goals (Harry; Entwistle, & Martin. 2006). The other related assumption of efficiency theory is the absence of negative externalities. An externality is an effect that a transaction between one set of parties puts on other parties who were not a part of the deal (and presumably had no say in the matter). Externalities may be negative or positive (Ware & Kynoch, 2013). A positive externality is a benefit to non-parties, whereas a negative externality imposes costs on non-parties. If a transaction has a negative externality, then the true cost of the transaction is higher than that paid by the parties.

The classic example of a negative externality is pollution generated by a productive enterprise that negatively affects the public, but the cost of which was not internalized by the transaction. Efficiency theory is typically applied “to contracts between firms that do not create negative externalities.” In the absence of externalities, and where there is a competitive market, theory states that efficient transacting occurs (Bower, 2012).

2.2.2 Agency Theory

Agency theory was developed by Stephen Ross and Barry Mitnick in 1973. Agency theory states that agency costs arise from the conflict of interest between a principal and an agent. This conflict results, for example, when managers, who are responsible for important decisions of the firm, are not the primary claimants of the firm’s net assets, and thus do not bear a major share of the wealth effects of their decisions.

Agency theory divides the costs of such arrangements into structuring costs, monitoring costs, and costs of bonding a set of contracts. Costly control procedures, such as the use of contracts, are necessary to align the actions of the managers (the agent) with those of the residual claimants, the shareholders (the principals). Agency theory stresses that such means of contracting reduce agency costs by coordinating the goals of the principal and the agent (Kumarappan & Joshi, 2014).

Agency theory predicts that in a well-functioning market, where there is perfect information and the ability to monitor, there should be little difficulty aligning incentives between principals and agents. If the principal is able to sufficiently monitor the agent’s performance, it can design sanctions and incentives to encourage optimal behavior. Further, if the agent knows that the principal will become aware of poor performance, and there are switching options in the marketplace, the agent will be dissuaded from performing poorly. The agent will also be concerned about reputational effects of poor quality service provision. Agency problems are often said to arise between the shareholders of a firm (the principals) and its managers (the agents) (Ware & Kynoch, 2013).

In relation to public procurement contracting, agencies refer to the various suppliers and contractors that provide products and services on behalf of the government. The use of contractors and suppliers helps to improve service delivery in the public sector.

It helps the government to closely monitor service delivery and provide efficient, affordable and consistent services to the public (Khayota, 2014).

2.3 Conceptual Framework

Serakan (2003) defines a conceptual framework as a logically developed network of interrelationships among variables deemed to be the integral part of the dynamics of the situation being investigated

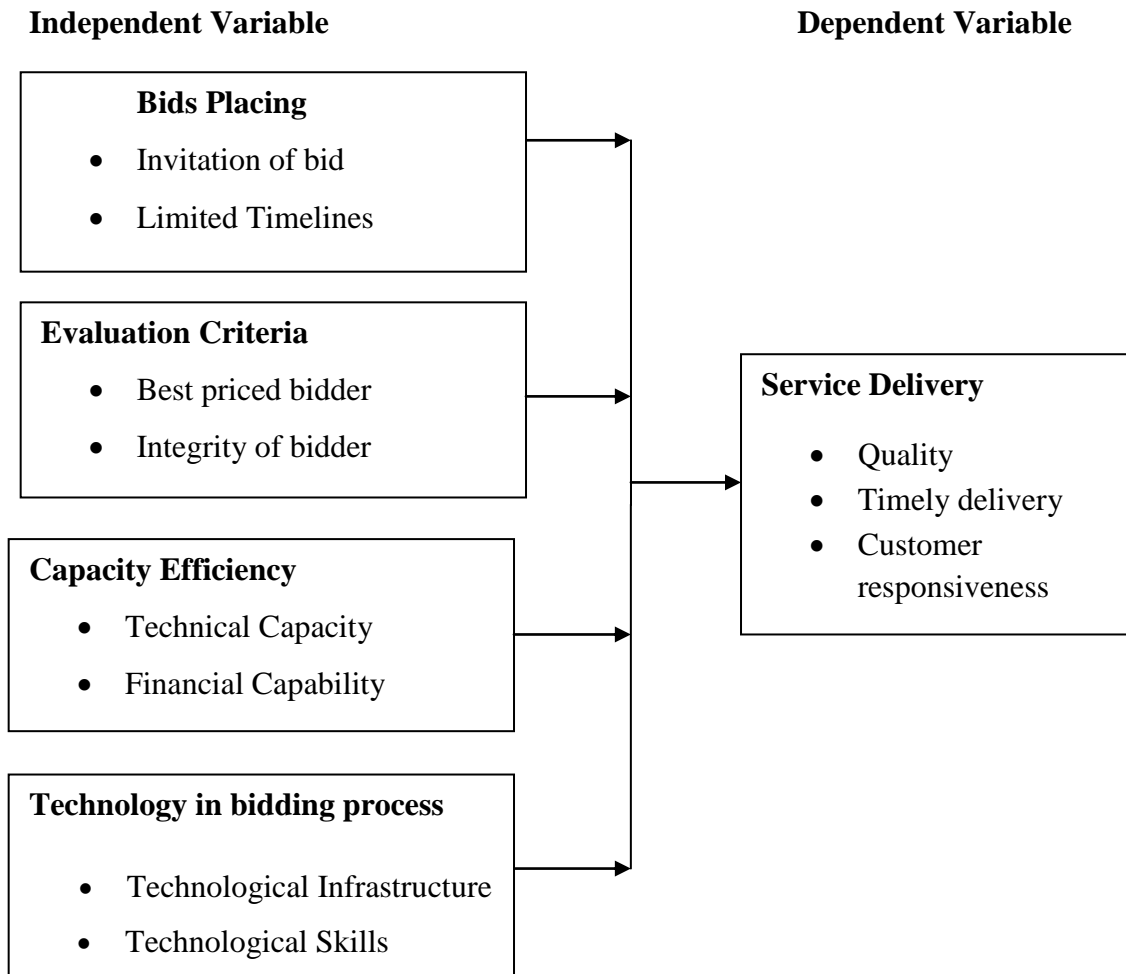


Figure 2.1: Conceptual Framework (2017)

2.4 Empirical Review

The procurement practices are concerned with acquisition of goods and services from reliable sources to ensure the organization meets their strategic goals in an efficient, effective and economic way. Chartered Institute of Procurement and Supply together with the Institute for Public Procurement, on procurement practice, hold that, firms have to devise comprehensive policy procedures and directions that highly defines the authority, responsibility and lay down the guidelines for the procurement

professionals and associated parties to follow in executing their roles. According to Monczka,(2014) good procurement practices result to; effect on quality, savings on cost and contribution in the technology advancement. Singhal(2011) notes that, disruptions in the procurement practices within the global scope ravage the organizational performance. In this case, poor procurement practices have implicit effect on company share prices and profitability hence the need to curb any loophole that can affect business continuity (Christopher, 2008). These practices can be applied interchangeably based on the firm's size and given that all the practices are linked. Therefore, the practices adopted must be a projection of the long term state of the company. In light of these, the study focuses on supplier partnerships, use of information technology, lean procurement and contract monitoring and control.

Salim (2013) on his study on “the role of procurement contract management practices on the effectiveness of project management at MIC-Tanzania. He concentrated on the need of contractors' compliance to contract terms and conditions, technical capability and contract monitoring towards project management as the objectives. The study methodology was descriptive design, purposive non-probabilistic sampling technique was used, data was collected using interview and questionnaire. From the findings the author's concluded that staff inadequacy, disputes caused by late delivery by suppliers, poor quality of works/services, vague specifications and supplier's technical incapability affect effectiveness of project management. He recommended that company should implement automated contract management system.

According to Agere, (2001) an ideal procurement system should also focus on effectiveness, where procuring entities should meet the commercial, regulatory and socio-economic goals of government in a manner that is appropriate to the procurement requirement. Furthermore, a good procurement practice should embrace: efficiency, which requires that procurement processes be carried out as cost effectively as possible; fair-dealing, where suppliers should be treated fairly, without discrimination or prejudice including protection of commercial confidentiality where necessary.

Sanghera (2008) says that an organization can determine if it is engaging in effective contract management if it makes appropriate strategic decisions and drafts right contracts. A contract is the pillar in the exercise of its proper and effective

management. Every contract should establish its basic principles, have clear scope, define execution terms and define procedures essential for successful communication between the contractor and contracting authority. It should also implement changes, evaluate contractor performance, accept or reject the contractor's deliverables, identify and manage risks, handle problems, resolve disputes, approve payments, and finally close the contract process (Trent, 2007).

2.4.1 Bid Placing

According to Lysons and Farrington, (2006) bidding is a procurement procedure whereby potential suppliers are invited to make an offer on the price and terms in which they will supply specified goods, Services or works which on acceptance shall be the basis of a subsequent contract. In a study by Zack, (1993) one of the most concerning reasons is the practice of a contractor intentionally submitting an artificially low bid in anticipation of making their profit through change orders and claims.

Some bidders carefully review the bid documents searching for mistakes and ambiguity in areas that could lead to change orders and claims during the project (Doyle & DeStephanis, 1990). These bidders can then use this knowledge to submit a lower bid with the expectation of recouping the money later. This practice can be equated to a gambit strategy in chess: making a small sacrifice early to setup up the opponent to be in a vulnerable position later (Crowley & Hancher, 1995). In all cases, the abnormally low bid is not reflective of the final contract cost or the hidden costs incurred by the client when dealing with numerous change orders and claims.

Some factor directly affects bidding decision and should be considered in the decision process. While considering an opportunity for the company, the bidding team usually focuses on the following features: alignment of the opportunity to the organization's objectives and policies, contractor's core business strategy, current work pressure, availability of research, competition, Current market conditions, capability to perform the contract, financial conditions of firm, type and size of the project, project location etc. (Lowe & Parvar 2004). When competitive bidding is required, the award of the contract is made to the lowest priced responsible bidder which has complied with the specifications. A bidder is entitled to reasonable notice and opportunity to be heard before a determination of non-responsibility is made (Gildenhuys, 2002).

Lerberghe (2004) conducted a study on common malpractices in the procurement process. The study found that collusion among bidders resulting in higher prices for purchased medicine, kickbacks from suppliers and contractors to reduce competition and influence the selection process, and bribes to public officials monitoring the winning contractors' performance all of these practices lead to cost overruns and low quality. Other forms of abuse, fraud and mis-management can occur due to insufficient management and monitoring capacity.

Ku, Malhotra, and Murnighan (2005) demonstrate that competition can cause bidders to become more aggressive, in what they call "competitive arousal." Similarly, Ariely and Simonson (2003) argue that bidders may enter an auction when the price is relatively low and then become attached not necessarily to the item but to the prospect of winning, leading them to increase their bids many times, perhaps at the last minute, after being outbid

Ockenfels and Roth (2006) show that late bidding by experienced bidders is a best response to the existence of at least one naïve bidder, who does not initially bid his valuation but instead raises it incrementally. By sniping, sophisticated bidders avoid starting a bidding war with incremental bidders. Indeed, the authors find that bidders who bid only once tend to submit their bids later than the last bids placed by incremental bidders, which is further evidence to suggest that sniping is favored by experienced bidders as a response to their naïve competitors.

2.4.2 Evaluation Criteria

According to Pettijohn, (2004) the procurement department coordinates analyze and evaluate bids against set criteria, specification requirements and presents the analysis to the procurement appointed committee for verification of supplier capability and quality control/ assurance processes. Babich and Pettijohn, (2004) states that the evaluation process consists of the preliminary examination and evaluation of the offers received, and considered to be valid, to assess their responsiveness to specifications and requirements as defined in the solicitation document, analyze their cost and benefit, and determine their price and value. Evaluation is conducted by a designated evaluation team and in accordance with the relevant regulations, rules and procedures, using the evaluation criteria and method pre-determined in the solicitation document in order to conduct a fair and unbiased evaluation. The evaluation process

also needs to be transparent, and therefore each step of the process documented in an evaluation report which subsequently is the basis for the recommendation of award (Babich & Pettijohn, 2004).

During evaluation, communication with tenderers only allowed for clarification purpose and no negotiations are allowed. Evaluation is the most crucial phase of tendering that all the parties involved directly or indirectly, keep a sharp eye on. A reasonable source selection, made consistently with the predetermined rules, gives good grounds for successful implementation of the contract and develops the tendering entity's prestige (Kovacs, 2008).

According to Lyons (2005), the department evaluates and select suppliers based upon price, quality, availability and reliability. Kovacs, (2008) also highlight that one of the things a tendering entity is mostly short of is financial resources; therefore costs-consciousness is one of the highest priorities in tendering practices. Although in most of the cases alone cannot reflect all the merits and demerits of the offered facilities, its prime essence is unquestionable. Accordingly to Van Bon, (2005), states that bids may only be evaluated in accordance with the evaluation criteria stipulated in the bid documentation. When any bid is passed over or regarded as non-responsive, the reasons for passing over such bid must be defensible in any court of law.

According to Hardy,(2011) bid evaluation is used to indicate the procedure for strategic assessment to tender bids submitted by pre-qualified contractors. The strategy used for bid evaluation should reflect the client's objectives. The evaluation of bids by multi-attribute methods may encounter some difficulties when comparing different criteria measured by different scales. Among all factors the main evaluation factor is cost or price consideration that may affect the selection of a contractor. Although the lowest bidder system protects the public from improper practices, it has certain disadvantages. These include unreasonable low bids either accidentally or deliberately or unqualified contractor which cause extensive delay, cost overrun, quality problems and increased number of disputes.

2.4.3 Supplier Capacity

According to (Hunt., Logan., Corbetta ., Crimmins ., Bayard ., Lore., & Bogen, 2006) it is necessary to consider technical, managerial and financial criteria. These comprise the applicant's permanent place of business, adequacy of plant and equipment to do

the work properly and expeditionary, suitability of financial capability to meet obligations required by the work, appropriateness of technical ability and experience, performance of work of the same general type and on a scale not less than 50% of the amount of the proposed contract, the frequency of previous failures to perform contracts properly or fail to complete them on time, the current position of the contractor to perform the contract well, and the contractor's relationship with subcontractors, or employees (Saaty, 2011)

According to Pauw, (2002) before awarding the tender, an audit should confirm that the evaluation exercise has not in any way been flawed and open procedures and non-discriminatory criteria were used. Pauw, (2002) further argue that this confirmation is necessary in the selection and awarding of all public tenders, and also greatly reduces possibility of tenderers contesting the award. Moeti (2007) added that all bidders should be invited to attend the awarding of tenders, as this goes a long way towards mitigating claims by bidders and other interested parties of tenders having been unfairly awarded.

According to Thai (2001), the basic principles of good contract management practice include accountability, where effective mechanisms must be in place in order to enable procuring entities spend the limited resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are convincing reasons for single sourcing; and consistency, which emphasizes the equal treatment of all bidders irrespective of race, nationality or political affiliation.

According to Anget(2005), traditional forms of procurement and tendering, supported by prescriptive, solution based specifications and the lowest price only, are suitable for routine projects but will hamper innovation in other types of projects. Selection of the lowest bidding contractor is one of the major causes of the poor performance of a construction project. Time-delays and cost-increases of construction projects are closely related to specifications on the qualifications of contractors financial, technical, experience, etc (Koushki, 2005).

Acquaye (2011) in determining the lowest evaluated price, the Tenderer's capability and resources available to carry out the work should be cross-checked. It is the review

process carried out by the evaluation panel to ascertain whether the tenderer offered the lowest evaluated tender price has the capacity or resources to carry out the contract effectively.

2.4.4 Technology in Bidding Process.

Technology is the change or integration of means of processing a product or service from what is perceived not be a good version to a better one. It can also be said to be a change of system or way of operation from inefficient or manual to automatic operations (Campbell, 2005). Public sector procurement activities have evolved from orders, systems to nowadays E-procurement. The study notes that unless one remembers that technology is a tool and that one needs to know how to use it, for it to be productive, the money that spend on technology will never appear to be wasted. According to the study, the emergence of internet technologies has changed the way that governments and organizations operate (Lalive, & Schmutzler, 2007). The majority of organizational spending consists of purchasing and thus in order to decrease the total costs spent on purchasing process, internet technologies have been used by both governments and enterprises.

Several studies have noted that E-Procurement is a “Revolution” due to its potential to reduce the total costs of acquisitions. These studies point out that the one thing to always remember about technology is that it is a tool to assist in getting sourcing and procurement related activities done in the organization. According to Monrove (2002), in the last decade, the development of information technology has proved decisive for the network society that has evolved in recent years. The study note that today, information technology is relatively cheap and flexible technology which not only has held significant importance for communication in society, but also for the development of the interplay between one procurement units of an organization to another. Another study by Rusek (2006), noted that the digitalization of information and data, as well as the opportunities offered by the internet, provides the basis for rationalization and improved efficiency in administrative processes for private sector procurement companies. In public sector companies digitalization provides a number of advantages, for example, the opportunity to establish new and more efficient work processes and to communicate and cooperate in new ways.

Traditional paper-based work processes in procurement can be made more efficient, changed or rendered superfluous when data and data-communication become electronic. Via this path, resources can be transferred from administration to service (Dai, 2005). Digitalization does not only bring advantages with it. The risk element in procurement changes radically along with technical development, for example, when traditional paper documents disappear and are replaced by digital information that easily can be stolen (copied), changed, deleted, etc., without trace. In future, security surrounding digital systems will be allocated important priority in all fields of society (Arora, 2007)

Development also requires an important technical redirection and comprehensive further training for users. For procurement officers, development will mean the need for further training, amended procurement methods and new IT-based in procurement tools. In the latest era, the significant usage of E-Procurement systems by governments and enterprises led to significant savings in government procurement costs. It has been shown theoretically and empirically that these savings are mostly caused by increased competitive environment, thus by increased number of bidders in government procurement auctions (Elmaghraby, 2007).

The success of E-Procurement systems mostly depends on the increases in number of bidders (suppliers) that participate to procurement auctions. So, the implementation of E-Procurement has some restrictions namely technology adoption and usage of E-Procurement systems by suppliers. Some public institutions have not embraced e-procurement. Again, E-procurement has high maintenance costs and required level of professionalism that needs to be investigated in terms of sustainability (Cramton & Ausubel, 2006).

Berger and Humphrey (2007) noted that the use of technology has not been fully embraced in the practice of undertaking procurement activities in Kenya. Berger and Humphrey observe while there are up to date systems such as reverse auction for undertaking bidding process in procurement, in most private and public sector the process is still being undertaken manually giving room for manipulation and corruption. Manual process also takes longer thus thereby affecting procurement activities. Dale (2010) also noted that the manufacturing industry performance in Kenya is hampered by lack of investment in technology that helps to reduce lead time,

improve efficiency and efficacy, and eliminate quality default and corruption in the processes.

In a bid to improve effectiveness and streamline business processes in the government supply chain, most governments have implemented Integrated Financial Management Information Systems. IFMIS is an ICT tool used in the supply chain. It actually automates financial operations and improves efficiency. It is a radical method of reforming government processes and making them customer focused and effective. An IFMIS is an information system that tracks financial events and summarizes financial information (Hendriks, 2012). It enables appropriate management reports, strategic, fiduciary responsibilities and the development of financial statements that can be audited. Basically, an IFMIS is an accounting system augmented to carry out a function depending on the requirements and the environment (Rodin-Brown, 2008). The major aim of an integrated IFMIS is to support the achievement of monetary discipline, strategic & efficient allocation and use of funds, value for money and accountability in the use of public funds (Caroline, 2014).

The scope of IFMIS can vary depending on the different countries and the public institutions it is implemented, but in a nutshell, the basic sub-systems are accounting, debt management, budgeting and cash management (Njihia, 2015). However, some countries have included non-core subsystems such as inventory management, procurement and revenue collection. The main advantage of implementing IFMIS is reducing corruption, by allowing effective risk identification. A properly engineered IFMIS focuses on different features that can assist in detecting excessive payments, fraud, and theft. Examples include automated exception reports, patterns of suspicious activities, automated cross-referencing of personal identification numbers, access controls, password and usernames (Chene, 2009).

An IFMIS is an essential constituent of financial changes to improve data security, financial reporting and efficiency (Selfano, 2014). Generally, IFMIS is the automation of Financial Management. In government, IFMIS is defined as the automation of public financial management practices, including budget preparation and execution, accounting and reporting, supported by an integrated system for financial management (Arnety, Ujunju & Wepukhulu, 2013). However, IFMIS has been integrated to include SCM and revenue collection modules (Chene, 2009).

2.4.5 Service Delivery

Mostafa (2005) carried out an empirical study of patient's expectations and satisfactions in Egyptian hospitals. The study involved the use of a cross-sectional questionnaire survey. A sample of 332 patients from 12 Egyptian hospitals participated in the study. He employed the use of the SERVQUAL model in his study and found a 67% variance between the expectations and perceptions of the patients (customers). A discriminate function was estimated for patients who selected public hospitals and those who selected private ones. The SERVQUAL model was found to be significant in influencing the choice of hospital by the patients. Boshoff and Gray (2004) studied the relationship between service quality, customer satisfaction and loyalty (as is measured by purchasing intentions) among the patients in the private healthcare industry in South Africa. The study revealed that the service quality dimensions of nursing staff empathy, assurance, and tangibles impact positively on the patients loyalty. Marley, Collier and Goldstein (2004) investigated the role of leadership, clinical quality and process quality on patient satisfaction in the hospitals of the United States of America (USA). The study involved a causal model, hypothesized and evaluated using structural equation modeling for a sample of 202 hospitals. The study revealed that good leadership is a good construct in the determination of service quality. Further, the outcome showed that clinical and process qualities are good intermediate outcomes in determining patient satisfaction.

Various studies have been done in Kenya with regard to service quality. In a study seeking to establish the relationship between service quality and technology in the banking industry, Ombati (2007) found out that the level of service quality is highly influenced by the level of technology adopted by the banks. Customers were more satisfied with the services offered by the banks that had automated their services, particularly with regard to security of transactions, efficiency, accuracy of records and convenience.

In a study investigating the determinants of service quality by the national carrier, Kenya Airways, Tirimba (2012) focused on the dimensions of service quality that had a direct impact on customer satisfaction. This study found out that airline passengers at Kenya Airways were satisfied with security and safety, timely communication of changes in flight and weather conditions of the destinations, courtesy of the employees to the passengers and the provision of a variety of food to the passengers.

2.5 Critique of Existing Literature Relevant to the Study

There are various studies that have been conducted regarding service delivery. Mostafa (2005) carried out a study of patient's expectations and satisfactions in Egyptian hospitals. However the study did not focus on the impact of procurement process on service delivery. Marley, (2004) investigated the role of leadership, clinical quality and process quality on patient satisfaction in the hospitals of the United States of America (USA). The findings of the study cannot be adopted in the Kenyan context since the study was conducted in a developed economy.

Ombati (2007) conducted a study on the relationship between service quality and technology in the banking industry. However the study was specific on the banking sector while this study focuses on the service delivery in the health sector. Salim (2013) on his study on "the role of procurement contract management in the effectiveness of project management.

The study addressed a need of contractors compliance to contract terms and conditions, technical capability and contract monitoring towards project management. The study did not address key component in service delivery, as a result a gap which discussed in this study. The research work by Mturi (2015) titled "assessment of effectiveness of procurement contracts management in public organizations. The study did not consider the private sector; no performance was addressed in the research, the study did not provide how contract management influences contractor performance and therefore, a gap which will be discussed in this research work.

2.6 Summary of the Literature

The study made use of the efficiency theory to explain the assessment of competitive contracting practices and their influence on service delivery in public hospitals in Kenya, in Nakuru County Government. The efficiency theory indicates that the main goal of using competitive contracting practices is to minimize contractual transaction costs, broadly understood as obstacles to efforts to shift resources to their most valuable use so as to improve efficiency in service deliver. The literature above shows that competitive contracting is the provision of a public service through a competitively awarded contract, where a public agency seeks competitive bids to provide a particular public service.

Unlike competitive procurement contracting, non-competitive contracting satisfies two basic conditions for contracting: independence on the part of the two contracting entities and definite aims of the service purchase contract. Lastly, the literature shows that informal agreements and unwritten codes of conduct that powerfully affect the behaviors of individuals within firms. Poor performance of procurement can be accredited to so many factors like; lack of planning, and funds, bureaucratic system and lack of understanding the process by stakeholders are some of the major cases of the poor performance by procurement. The absence of infrastructure for information communication technology to shorten the lead time of public sector procurement process can be attributed to poor performance.

2.7 Research Gaps

Various studies have been conducted Parkera and Hartley (2003) indicate that one of the main challenges facing procurement contracting practices in public institutions is increase in corruption and collusion due to the use of noncompetitive procedures. The study did not address challenges facing procurement contracting practices in private institution. A Study by Patrick (2008) sought to explain the status of effective procurement practices in Kenya but do not offer practical solution on how government training institutions should embrace effective procurement practices. A study by Talluri (2008) found that many government organizations in India and Malaysia lack effective procurement policies for supporting effective implementation of procurement practices. A study by Mwangi (2014) found that application of poor sourcing strategies is a key impediment to implementation of effective procurement practices in many government institutions in Kenya. A study by Salim (2013) found that in many African government institutions, many procurement managers are not trained on implementation of effective procurement practices since most African training institutions have not embraced effective procurement practices in public procurement training institutions. These studies were not specific on the type of procurement practices hence developing a major knowledge gap on competitive procurement practices. This study aims to fill the missing gaps by determining the influence of competitive procurement practices on service delivery.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a way to systematically solving the research problem. It may be understood as a social science of studying how research is done scientifically. This chapter covers the descriptions of research design and methodology, the study location, target population, census procedure and use of research instruments. It also includes reliability and validity of the instruments, data collection procedures, analysis and interpretation.

3.2 Research Design

The study adopted a descriptive survey design. This kind of design is useful in collecting information about peoples' attitudes opinions, habit or social issues, (Orodho & Kombo, 2002). In this research the opinions of the respondents was sought in regard to the effect of competitive contracting practices on service delivery among health facilities in Nakuru County. This design reduced unnecessary answers from the respondents due to its inflexibility which assisted the researcher in arriving at conclusions faster.

3.3 Target Population

Target population refers to an entire group of persons or elements that have one thing in common (Kombo & Tromp, 2006). The target population was 80 officers who included medical officers in charge, procurement officers and department heads from user departments in the selected health facilities in Nakuru County. The study concentrated on sub-county hospitals and the referral hospital. According to Nakuru County Health Records Department there are twelve sub-county hospitals and one referral hospital.

3.4 Census Design

The study adopted census technique to incorporate all the targeted respondents. According to Mugenda (2001) census is sampling technique whereby every member or item of the population is surveyed. Therefore the study sample size was 5 procurement officers, 63 head of departments from user department and 12 medical officers in charge of the 12 selected hospitals. The general hospital and district

hospitals are the only hospitals mandated to procure medical equipment for themselves and on behalf of other health facilities in the county. In Nakuru County, Bahati District Hospital procures on behalf of Subukia Sub-District Hospital and Kabazi Sub-District Hospital. Molo District Hospital procures on behalf of Keringet Sub-District Hospital, Olenguruone Sub-District Hospital and Elburgon Sub-District Hospital. Nakuru Teaching and Referral Hospital procure on behalf of Njoro Sub-District Hospital and Mirugi Kariuki Sub-District Hospital. Naivasha District hospital procures on behalf of Gilgil Sub-District Hospital.

3.5 Research Instruments

Questionnaire was used to collect the primary data desirable for the study. According to Jankowicz, (2005) questionnaires are any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers (Jankowicz, 2005). The design of the questionnaires was based on a multiple-item measurement scale. A five-point Likert Data was employed, using a list of response categories ranging from strongly agree to strongly disagree where 5=Strongly Agree, 4=Agree, 3=Undecided, 2=Disagree and 1=Strongly Agree

The questionnaire was divided into six sections. Part A which contained the background information and parts B, C, D, E and F which contained the research variables. There are several advantages associated with the use of the questionnaire and which informs its usage in this study. These advantages include ease of distribution and data collection, ease of data analysis, standardization of the questions and cost efficiency.

3.6 Pilot Test

Pilot survey is a small scale replica and rehearsal of the main study. It assists in determining the suitability and ease of use of the research instruments and the operational aspects of administering the questionnaires. The purpose of a pilot test is to discover possible weaknesses, inadequacies, ambiguities and problems in any aspect of the research process. A pilot-test was conducted in Nyahururu Hospital, Laikipia County where 8 questionnaires were issued out. Data collected from the pilot study was not incorporated in the main study.

3.7 Data Collection Procedures

Data collection process began by getting a formal letter from the university authorizing the field study. The letter together with the consent statement was then presented to the County Government health department as a means of seeking authority to collect data from the institution. Data was collected using drop and pick later method which was collected after two weeks. In this method, the consent statement was issued and then the questionnaire administered. The respondents were assured of their confidentiality of information that they provided which improved the response rate. Arrangement was made to collect the questionnaire later at pre-agreed time.

3.7.1 Validity

According to Orodho, (2005) validity is the degree to which results obtained from analysis of the data actually represents the phenomenon under investigation. There are two types of validity of the questionnaire, which are face validity and content validity. Face validity refers to likelihood that a question is misunderstood or misinterpreted. According to Cooper and Schindler (2006) pre-testing is a good way to increase the likelihood of face validity. On the other hand, content validity, which also known as logical validity, refers to the extent to which a measure represents all facets of a given social construct. The content validity of this study was enhanced by seeking opinions of experts in the field of study especially the supervisors.

3.7.2 Reliability

Reliability is a measure of the degree to which a research instruments yields constant results or data after repeated trials (Kothari, 2004). Reliability enables the researcher to estimate error and make the necessary corrections if any. This is because the larger the reliability the smaller the error and conversely, the larger the error, the smaller the reliability. Reliability in this study was enhanced by pre-testing the questionnaire with a selected sample which was not included in the main study. An internal consistency technique was applied by use of Cronbach's Alpha. To test the reliability of the research instrument, the questionnaires were randomly administered to a pilot group of 8 respondents. The same respondents were not used again in the consequent study. The questionnaire's reliability was statistically measured by measuring the internal consistency. In turn, internal consistency was measured by use of Cronbach's Alpha.

The alpha value ranges between 0 and 1 with reliability increasing consistently with increase in value (Kothari, 2004). Coefficient of 0.6-0.7 is a normally accepted rule of thumb that designates acceptable reliability and 0.8 or higher indicated good reliability will be deemed reliable (Mugenda & Mugenda, 2003). The following table indicate the Cronbach's alpha for each of the variable

Table 3.1: Reliability Statistics

Variable	Cronbach's Alpha
Bids Placing	0.884
Evaluation Criteria	0.903
Supplier Capacity	0.732
Technology in bidding process	0.925

3.8 Data Processing and Analysis

Data analysis is the process of bringing order, structure and meaning to the mass information collected (Cooper & Schindler, 2003). Data analysis involves reduction of accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. Data collected was quantitative in nature. Quantitative data was analysed by use of Statistical Package for Social Sciences (SPSS) version 24. Both descriptive and inferential statistics was used in the study.

Descriptive statistics involved the use of percentages, frequencies, measures of central tendencies (mean) and measures of dispersion (standard deviation). Inferential statistic was used to determine the relationship between variables. A correlation is defined as a number between -1 and +1 that measures the degree of association between two variables.

The multivariate regression model used was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y = Service Delivery

β_0 = Constant Term;

β_1, β_2 and β_3 = Beta coefficients;

X_1 = Bids placing

X_2 = Evaluation Criteria

X_3 = Suppliers Capacity

X_4 = Technology

ε = Error term

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATIONS

4.1 Introduction

This chapter presents the findings and interpretations of the results based on the objective of the study, which was an assessment of competitive contracting practices and their influence on service delivery in public hospitals in Kenya. Specifically the study sought to find out the influence of bids placing, evaluation criteria, suppliers capacity and technology on service delivery in public hospitals in Nakuru County Kenya.

4.2 Response Rate

Response rate equals the number of people with whom semi-structured questionnaires were properly completed divided by the total number of people in the entire sample (Fowler, 2004). The study thus administered 80 questionnaires for data collection. However, 62 questionnaires were properly filled and returned. This represented 78 percent overall successful response rates. Respondents were also assured of confidentiality of the information provided. Babbie (1990) suggested that a response rate of 50% is adequate 60% is good and 70% and above very good for analysis. This implies that 78 percent response rate was very appropriate for data analysis.

4.3 Demographic Information

The demographic information presented is on the gender of the respondents, education level of the respondents and duration the respondents had been working in the organization.

4.3.1 Gender representation of the study subjects

The respondents were also asked to indicate the gender representation of the study subjects. The findings we as presented in table 4.1

Table 4.1: Gender representation of the study subjects

Gender	Frequency	Percentage
Male	37	59
Female	25	41
Total	62	100

According to the findings, 59% of the respondents were male while 41% were female. This shows that majority of the respondents involved in procurement processes in public health facilities in Nakuru County are Male. Procurement is one of the key functions in the management of any organization therefore more women should be engaged in the procurement functions to ensure gender parity. Gender is important for a public procurement policy because it can ensure equitable access and provide benefits from diversifying the supply chain (Kirton 2012).

4.3.2 Respondents' Highest Level of Education

The respondents were asked to indicate their highest level of education. The findings were as shown in table 4.2.

Table 4.2: Respondents' Highest Level of Education

Level of Education	Frequency	Percentage
Post Graduate	29	47%
University	19	30%
College	14	23%
Total	62	100%

From the findings, 47% of the respondents indicated that they had attained post graduate education, 30% indicated that they had attained university education while 23% indicated that they had college education. This shows that majority of the respondents had attained post graduate education. The education level determines the efficiency of a procurement officer. Officer with high education level tend to perform better.

4.3.3 Duration Worked in the Current Organization

The respondents were also asked to indicate the duration the respondents had been working in their current organization. The findings were presented in table 4.3.

Table 4.3: Duration Worked in the Current Organization

Duration of Service	Frequency	Percentage
Less than 3 Years	13	21%
3-9 Years	30	49%
9-12 Years	14	23%
More than 12years	5	7%
Total	62	100

According to the findings, 49% of the respondents indicated that they had been working in their current organization for 3-9 years, 23% stated they had been working in their current organization for 9-12 years, 21% stated they had been working in their current organization for less than 3 years while 7% stated they had been working in their current organization for more than 12 years. This shows that majority of the respondents had been working in their current organization for more than 3 years.

The duration of service an individual has worked determines his/her capacity. Employees who have longer working experience tend to have better skills. In this study majority of the respondents have worked for more than 3 years indicating they were more conversant with contracting aspects under study.

4.4 Descriptive Statistics

The study requested respondents to give opinions in regard to bids placing, evaluation criteria suppliers' capacity, technology on service delivery in public hospitals. The interpretation of the findings was made based on the mean and standard deviation. The value of the mean indicated the level of agreement. The value of the mean ranged between 1-5, with 1 being the least mean and 5 being the highest mean. Standard deviation is a measure of the dispersion of a set of data from its mean

4.4.1 Bids placing on service delivery in public hospitals

The respondents were asked to indicate their level of agreement on the influence of bids placing on service delivery in public hospitals. The findings were as indicated in Table 4.4.

Table 4.4: Bids placing on service delivery in public hospitals

	SA	A	U	D	SD	Mean	Std
	%	%	%	%	%		
The organization always seeks competitive bids from its suppliers for service provision over a particular period of time	26	47	17	10	0	3.887	0.907
Competitive bidding ensure productivity and quality are attained	37	45	13	5	0	4.113	0.870
Competitive bidding ensures there is value for money	55	42	3	0	0	4.516	0.565
Non-Competitive bidding is used to procure unique contractor expertise or services	57	37	6	0	0	4.500	0.621
Non- Competitive is used to avoid delays occasioned if a competitive procurement was to be used.	39	44	11	6	0	4.145	0.866
Non-competitive bidding is appropriate when the requirements are of such an unusual and compelling urgency	45	37	13	5	0	4.226	0.857

According to the findings, majority of the respondents (73%) agreed that the organization always seeks competitive bids from its suppliers for service provision over a particular period of time with a mean of 3.887. The findings further indicated that majority of the respondents (82%) agreed that competitive bidding ensure costs, productivity and quality are attained with a mean of 4.113. In addition majority of the respondents (97%) agreed that competitive bidding ensures there is value for money with a mean of 4.516.

The findings further indicated that majority of the respondents (94%) agreed that non-competitive bidding is used to procure unique contractor expertise or services with of mean4.500. In addition majority of the respondents (83%) agreed that non-competitive bidding is used to avoid delays occasioned if a competitive procurement with a mean of 4.145. Finally majority of the respondents (82%) agreed that that non-competitive bidding is appropriate when the requirements are of such an unusual and compelling urgency with a mean of 4.226.

The standard deviation ranged between 0.565 to 0.907 indicating that the dispersion of the respondents from the mean was minimal. The study is in line with Gildenhuis, (2002) who argued that competitive bidding is required, the award of the contract is made to the lowest priced responsible bidder which has complied with the specifications. The study further agreed with Ariely and Simonson (2003) who argued that bidders may enter an auction when the price is relatively low and then become attached not necessarily to the item but to the prospect of winning, leading them to increase their bids many times, perhaps at the last minute, after being outbid. Lowest bidding contractor is one of the major causes of the poor performance of a construction project.

4.4.2 Evaluation criteria on service delivery in public hospitals

The respondents were asked to indicate their level of agreement on the influence of evaluation criteria on service delivery in public hospitals. The findings were as indicated in Table 4.5

Table 4.5: Evaluation criteria on service delivery in public hospitals

	S	A	A	U	D	SD	Mean	Std
	%	%	%	%	%	%		
Evaluation criteria ensure that the selected bidder does not really have to be the lowest	52	39	9	0	0		4.419	0.667
The government does not use evaluation criteria when seeking a unique contractor expertise or services	37	31	19	13	0		3.887	1.073
Evaluation criteria ensures that the lowest priced bid has been selected	44	40	6	10	0		4.177	0.932
Evaluation criteria ensures that the selected bidder is reliable	37	39	10	14	0		3.984	1.032
Evaluation criteria ensures the uprightness of the bidders	42	39	11	8	0		4.145	0.921
Evaluations develop the rapport and communication protocol that it's important in the delivery of quality products and services	53	45	2	8	0		4.516	0.921

According to the findings majority of the respondents agreed (91%) that evaluation criteria ensure that the selected bidder does not really have to be the lowest indicated with a mean of 4.419. The findings further indicated that majority of the respondents (68%) agreed that government does not use evaluation criteria when seeking a unique contractor expertise or services with a mean of 3.887. Also, the findings indicated that majority of the respondents (84%) agreed that evaluation criteria ensures that the lowest priced bid has been selected with a mean of 4.177. Further majority of the respondents (76%) agreed that the evaluation criteria ensures that the selected bidder is reliable with a mean of 3.984. Majority of the respondents (81%) also indicated that the evaluation criteria ensures the uprightness of the bidders with a mean of 4.145. Finally majority of the respondents (98%) agreed that evaluations develop the rapport and communication protocol that it's important in the delivery of quality products and services with a mean of 4.516. The standard deviation ranged between 0.667 to 1.073 indicating that majority of the respondents agreed with the issues raised.

According to Kovacs, (2008) evaluation is the most crucial phase of tendering that all the parties involved directly or indirectly, keep a sharp eye on. A reasonable source selection, made consistently with the predetermined rules, gives good grounds for successful implementation of the contract and develops the tendering entity's prestige. Moeti (2007) argue that all bidders should be invited to attend the awarding of tenders, as this goes a long way towards mitigating claims by bidders and other interested parties of tenders having been unfairly awarded.

4.4.3 Supplier Capacity on Service Delivery in Public Hospitals

The respondents were asked to indicate their level of agreement on the influence of supplier capacity on service delivery in public hospitals. The findings were as indicated in Table 4.6.

Table 4.6: Supplier capacity on service delivery in public hospitals

	S	A	U	D	SD	Mean	Std
	%	%	%	%	%		
Hospitals consider technical skills such as plant and equipment.	50	31	11	8	0	4.226	0.948
Suppliers are selected based on knowledge and experience relevant to procurement requirement	55	42	3	0	0	4.516	0.565
Hospitals consider financial status when sourcing for suppliers	66	34	0	0	0	4.645	0.482
Suppliers are selected on the bases of quality of product and services	52	48	0	0	0	4.516	0.504
Hospitals consider the duration of time in business when sourcing for supplier	45	50	5	0	0	4.403	0.586

According to the findings majority of the respondents (81%) agreed that hospitals consider technical skills such as plant and equipment with a mean of 4.226. Majority of the respondents (97%) also agreed with a mean of 4.516 that suppliers are selected based on knowledge and experience relevant to procurement requirement. Majority of the respondents (100%) further agreed indicated that hospitals consider financial status when sourcing for suppliers with a mean of 4.645.

In addition majority of the respondents (100%) agreed that that suppliers are selected on the bases of quality of product and services with a mean of 4.516. Finally majority of the respondents (95%) agreed that hospitals consider the duration of time in business when sourcing for supplier with a mean of 4.403. The standard deviation ranged between 0.482 to 0.948 indicating that majority of the respondents agreed with the issues raised.

According to Pauw, (2002) before awarding the tender, an audit should confirm that the evaluation exercise has not in any way been flawed and open procedures and non-discriminatory criteria were used. Hardy,(2011) argue that among all factors the main evaluation factor is cost or price consideration that may affect the selection of a contractor. Acquaye (2011) also argued that determining the lowest evaluated price,

the tenderer's capability and resources available to carry out the work should be cross-checked.

4.4.4 Technology on Service Delivery in Public Hospitals

The respondents were asked to indicate their level of agreement on the influence of technology on service delivery in public hospitals. The findings were as indicated in Table 4.7

Table 4.7: Technology on service delivery in public hospitals

	S	A	A	U	D	SD	Mean	Std
	%	%	%	%	%			
Well defined technological infrastructure ensures integrity and transparency of procurement records	47	34	13	6	0		4.210	0.908
Adoption of technology in procurement operations result to reduced lead time	50	31	15	5	0		4.258	0.886
Adoption of technology in the bidding process provides an equal opportunity to all the bidders	44	53	3	0	0		4.403	0.557
Low computer literacy among employees hinders the adoption of E-procurement which negatively affect service delivery	37	44	16	3	0		4.145	0.807
Resistant to change in technology negatively affects the bidding process.	35	45	5	0	0		4.452	0.592
Well conversant employees to technology ease the bidding process.	52	44	4	0	0		4.468	0.593

According to the findings majority of the respondents (81%) agreed that well defined technological infrastructure ensures integrity and transparency of procurement records with a mean of 4.210. Majority of the respondents (81%) also agreed that adoption of technology in procurement operations result to reduced lead time which implies that majority of the respondents agreed that adoption of technology in procurement operations result to reduced lead time a mean of 4.258.

Majority of the respondents also (97%) agreed that adoption of technology in the bidding process provides an equal opportunity to all the bidders with a mean of 4.403. In addition majority of the respondents (81%) agreed that low computer literacy among employees hinders the adoption of E-procurement which negatively affects service delivery indicated with a mean of 4.145. Further majority of the respondents (80%) agreed that resistant to change in technology negatively affects the bidding process with a mean of 4.452.

Finally majority of the respondents (96%) agreed that well conversant employees to technology ease the bidding process with a mean of 4.468. This implies that well conversant employees to technology ease the bidding process. The standard deviation ranged between 0.557 to 0.908 indicating that majority of the respondents agreed with the issues raised. The study agree with a study by Rusek (2006), who noted that the digitalization of information and data, as well as the opportunities offered by the internet, provides the basis for rationalization and improved efficiency in administrative processes for private sector procurement companies.

4.4.5 Service Delivery in Public Hospitals

The respondents were asked to indicate their level of agreement on the level of service delivery in public hospitals. The findings were as indicated in Table 4.8.

Table 4.8: Service delivery in public hospitals

	S	A	U	D	SD	Mean	Std
	%	%	%	%	%		
Majority of patients always come back when in need of service	37	34	10	16	3	3.855	1.185
Patients are attended within the set time-lines	55	34	8	3	0	4.403	0.778
The hospitals receive new patients who are referred by their friends.	44	46	7	3	0	4.307	0.738
Customers are satisfied with the service provided	37	44	16	3	0	4.145	0.807
General patient satisfaction surveys are conducted	55	33	7	5	0	4.387	0.869
Compliance with a treatment plan is monitored	44	50	6	0	0	4.371	0.607

According to the findings majority of the respondents (71%) agreed that majority of patients always come back when in need of service with a mean of 3.855. Majority of the respondents (89%) also agreed that patients are attended within the set time-lines with a mean of 4.403. They further agreed (90%) that hospitals receive new patients who are referred by their friends. indicated with a mean of 4.307.

In addition majority of the respondents (81%) agreed that customers are satisfied with the service provided with a mean of 4.145. Majority of the respondents (88%) also agreed that general patient satisfaction surveys are conducted with a mean 4.387. Majority of them (94%) also agreed that compliance with a treatment plan is monitored with a mean of 4.371. The standard deviation ranged between 0.607 to 1.185 indicating that majority of the respondents agreed with the issues raised.

4.5 Inferential Statistics

4.5.1 Bids Placing and Service Delivery

The study sought to establish the correlation between bid placing and service delivery in public hospitals in Nakuru County. The findings of the study are as shown in Table 4.9.

Table 4.9: Bids placing and service delivery

		Service Delivery
Bids Placing	Pearson Correlation	.443**
	Sig. (2-tailed)	.000
	N	62

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

As indicated in Table 4.12, the study indicates that there was a moderate positive and statistically significant correlation between bid placing and service delivery. ($r = 0.443$; $p < 0.05$). This implies that an increase in efficiency in bid placing results to an improvement in service delivery.

4.5.2 Evaluation Criteria and Service Delivery

In addition the study sought to establish the correlation between evaluation criteria and service delivery in public hospitals in Nakuru County. The findings of the study are as shown in Table 4.10.

Table 4.10: Evaluation criteria and service delivery

	Service Delivery	
Evaluation criteria	Pearson Correlation	.441**
	Sig. (2-tailed)	.006
	N	62

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

As indicated in Table 4.12, the study indicates that there was a moderate positive and statistically significant correlation between evaluation criteria and service delivery. ($r = 0.441$; $p < 0.05$). This implies that an increase in effectiveness in evaluation criteria results to an improvement in service delivery.

4.5.3 Suppliers Capacity and Service Delivery

The study determined the influence of supplier capacity on service delivery. The results of the correlation analysis are as shown in Table 4.11.

Table 4.11: Suppliers capacity and Service Delivery

	Service Delivery	
Suppliers capacity	Pearson Correlation	.430**
	Sig. (2-tailed)	.022
	N	62

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

As shown in Table 4.14, the correlation between supplier capacity and service delivery was found to be moderately positive, statistically significant ($r = 0.449$; $p < 0.05$). This implies that increase in supplier capacity results to an improvement in service delivery..

4.5.4 Technology and Service Delivery

Lastly, the study examined the influence of technology on service delivery. The results of correlation analysis are outlined in Table 4.12.

Table 4.12: Technology and Service Delivery

		Service Delivery
Technology	Pearson Correlation	.441**
	Sig. (2-tailed)	.000
	N	62

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

The study as shown in Table 4.15 established that a moderate positive correlation existed between technology and service delivery ($r = 0.441$; $p < 0.05$). The results of the correlation analysis indicated that an increase in the adoption of technology results to improved survive delivery.

4.6 Hypothesis Test

This section discusses the results of hypotheses testing in relation to the research hypotheses. The study sought to examine the influence of independent variables on dependent variables. F-test was used in testing the null hypothesis. F-test is used for testing the hypothesis of equality of two population variances. If the F statistic test is larger than the F value, the null hypothesis is rejected.

4.6.1 Bids Placing and Service Delivery

The study sought to examine the influence of bids placing on service delivery. It was hypothesized (Hypothesis H_{01}) that bids placing has no significant influence on service delivery in public hospitals in Nakuru County Kenya. The results are presented in Table 4.13.

Table 4.13: Model Summary on Bids Placing and Service Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.443 ^a	.197	.183	.370

a. Predictors: (Constant), Bid Placing

The results indicate that bid placing has a moderate positive correlation with service delivery ($R = 0.443$). The R-squared in this study was 0.197 which shows that bid placing explains 19.7 % variation in the service delivery.

Table 4.14: Anova on Bids Placing and Service Delivery

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.293	4	7.323	53.453	.000 ^b
	Residual	7.802	57	.137		
Total		37.095	61			

a. Dependent Variable: Service Delivery

b. Predictors: (Constant), Bid Placing

From the findings, the F-Value of (53.453) was found to be significant at (0.000) which shows that the model was fit in predicting the influence of the bid placing on the service delivery and hence the hypothesis that: bids placing have no significant influence on service delivery in public hospitals in Nakuru County Kenya was rejected. The findings are consistent with Gildenhuis, (2002) who argue that when competitive bidding is required, the award of the contract is made to the lowest priced responsible bidder which has complied with the specifications which positively affect service delivery.

4.6.2 Evaluation Criteria and Service Delivery

The study sought to examine the influence of evaluation criteria on service delivery. It was hypothesized (Hypothesis H₀₂) that evaluation criteria have no significant influence on service delivery in public hospitals in Nakuru County Kenya. The results are presented in Table 4.15.

Table 4.15: Model Summary on Evaluation Criteria and Service Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441 ^a	.194	.180	.3376

a. Predictors: (Constant), Evaluation Criteria

The results indicate that evaluation criteria has a moderate positive correlation with service delivery (R = 0.441). The R-squared in this study was 0.194 which shows that evaluation criteria explain 19.4% variation in the service delivery.

Table 4. 16: Anova on Evaluation Criteria and Service Delivery

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.623	4	7.656	67.158	.000 ^b
	Residual	6.472	57	.114		
	Total	37.095	61			

a. Dependent Variable: Service Delivery

b. Predictors: (Constant), Evaluation Criteria

From the findings, the F-Value of (67.158) was found to be significant at (0.000) which shows that the model was fit in predicting the influence of the evaluation criteria on the service delivery and hence the hypothesis that: evaluation criteria have no significant influence on service delivery in public hospitals in Nakuru County Kenya was rejected. The findings are consistent with Hardy, (2011) findings that bid evaluation is used to indicate the procedure for strategic assessment to tender bids submitted by pre-qualified contractors.

4.6.3 Suppliers capacity and Service Delivery

The study sought to examine the influence of supplier capacity on service delivery. It was hypothesized (Hypothesis H₀₃) that supplier capacity has no significant influence on service delivery in public hospitals in Nakuru County Kenya. The results are presented in Table 4.17.

Table 4.17: Model Summary on Suppliers capacity and Service Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.430 ^a	0.185	.171	.4000

a. Predictors: (Constant), Supplier Capacity

The results indicate that supplier capacity has a moderate positive correlation with service delivery (R = 0.430). The R-squared in this study was 0.185 which shows that supplier capacity explain 18.5% variation in the service delivery.

Table 4.18: Anova on Suppliers capacity and Service Delivery

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.001	4	7.000	43.750	.000 ^b
	Residual	9.094	57	.160		
	Total	37.095	61			

a. Dependent Variable: Service Delivery

b. Predictors: (Constant), Supplier Capacity

From the findings, the F-Value of (43.750) was found to be significant at (0.000) which shows that the model was fit in predicting the influence of the suppliers capacity on the service delivery and hence the hypothesis that: supplier capacity have no significant influence on service delivery in public hospitals in Nakuru County Kenya was rejected. The findings are in consistent with Moeti (2007) who argued that all bidders should be invited to attend the awarding of tenders, as this goes a long way towards mitigating claims by bidders and other interested parties of tenders having been unfairly awarded.

4.6.4 Technology and Service Delivery

The study sought to examine the influence of technology on service delivery. It was hypothesized (Hypothesis H₀₄) that technology has no significant influence on service delivery in public hospitals in Nakuru County Kenya. The result is presented in Table 4.18

Table 4.19: Model Summary on Technology and Service Delivery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441 ^a	.194	.180	.3102

a. Predictors: (Constant), Technology

The results indicate that technology has a moderate positive correlation with service delivery (R = 0.441). The R-squared in this study was 0.194 which shows that technology explain 19.4% variation in the service delivery. The findings are consistent with Berger and Humphrey (2007) who noted that the use of technology should be fully embraced in the practice of undertaking procurement activities.

Table 4.20: Anova on Technology and Service Delivery

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.611	4	7.903	82.152	.000 ^b
	Residual	5.484	57	.0962		
	Total	37.095	61			

a. Dependent Variable: Service Delivery

b. Predictors: (Constant), Technology

From the findings, the F-Value of (82.152) was found to be significant at (0.000) which shows that the model was fit in predicting the influence of the technology on the service delivery and hence the hypothesis that: technology have no significant influence on service delivery in public hospitals in Nakuru County Kenya was rejected. The findings are consistent with Berger and Humphrey (2007) who noted that the use of technology ought to be fully embraced in the practice of undertaking procurement activities.

4.7 Multiple Regression

The study evaluated how bids placing, evaluation criteria, suppliers capacity and technology influenced service delivery in public hospitals in Nakuru County. Using

multiple regression analysis, the combined effect of bids placing, evaluation criteria, supplier's capacity and technology on service delivery in public hospitals was established.

Table 4.21: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change
1	.878 ^a	.770	.749	.3873	.000

The R-Squared is the proportion of variance in the dependent variable which can be explained by the independent variables. The R-squared in this study was 0.770, which shows that the four independent variables (bids placing, evaluation criteria, supplier's capacity and technology) can explain 77.0% of service delivery in public hospitals while other factors explain 23.0%.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	28.563	4	7.141	47.607	.000 ^b
1	Residual	8.532	57	.150		
	Total	37.095	61			

a. Dependent Variable: service delivery

b. Predictors: (Constant), Bids Placing, Evaluation Criteria, Suppliers Capacity And Technology

The analysis of variance in this study was used to determine whether the model is a good fit for the data. From the findings, the p-value was 0.000 which is less than 0.05 and hence the model is good in predicting how the four independent variables (bids placing, evaluation criteria, supplier's capacity and technology) influence service delivery in public hospitals in Nakuru County Kenya. Further, the F-value was (47.607) which shows that the model was fit in predicting the influence of the independent variables on the dependent variable

Table 4. 22: Regression Coefficients

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	.038	.145		.260	.796
Bids Placing	.596	.107	.548	5.548	.000
1 Evaluation Criteria	.233	.081	.245	2.877	.006
Suppliers Capacity	.245	.104	.179	2.356	.022
Technology	.432	.106	.382	4.075	.000

Table 4.22 shows the overall significant test results for the hypothesized research model. The interpretations of the findings indicated follow the following regression model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Therefore,

$$Y = 0.038 + 0.596X_1 + 0.233X_2 + 0.245 X_3 + 0.432 X_4$$

According to the intercept (β_0), when the four independent variables are held constant, the value of service delivery in public hospital in Nakuru County will be 0.038. In addition, holding all the other independent variables constant, a unit increase in bids placing would lead to a 0.596 improvement in service delivery in public hospital in Nakuru County. The relationship was significant as shown by a p-value of 0.000. Further, holding on the other independent variables constant, a unit increase in evaluation criteria would lead to a 0.233 improvement in service delivery in public hospital in Nakuru County. The relationship was significant as shown by p-value of 0.006.

In addition, holding all the other variables constant, a unit increase in supplier's capacity would lead to a 0.245 improvement in service delivery in public hospital in Nakuru County. The relationship is significant as shown by a p-value of 0.022. Lastly, the findings show that a unit increase in technology would lead to a 0.432

improvement in service delivery in public hospital in Nakuru County. The relationship was significant as shown by a p-value of 0.000.

From these findings we can infer that bids placing were influencing service delivery in public hospital in Nakuru County most, followed by technology, supplier capacity and evaluation criteria.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a detailed summary of the major findings of the actual study; it then draws conclusions and discusses implications emanating from these findings. Finally, it makes some recommendations and suggestions on areas of further study. The main aim of this study was an assessment of competitive contracting practices and their influence on service delivery in public hospitals in Kenya.

5.2 Summary of Major Findings

5.2.1 Bids placing on service delivery in public hospitals in Nakuru County Kenya

Regarding the influence of bids placing on service delivery in public hospitals, it emerged from the results that public hospitals always seeks competitive bids from its suppliers for service provision over a particular period of time. Majority of the respondents agreed that competitive bidding ensure productivity and quality are attained. Competitive bidding ensures there is value for money. The findings also indicated that bid placing has a moderate positive correlation with service delivery ($R = 0.443$). The findings are consistent with Simonson (2003) who argued that bidders may enter in an auction when the price is relatively low and then become attached not necessarily to the item but to the prospect of winning, leading them to increase their bids many times, perhaps at the last minute, after being outbid

5.2.3 Evaluation Criteria on Service Delivery

Regarding the effect of evaluation criteria on service delivery the study revealed that hospitals do not use evaluation criteria when seeking a unique contractor expertise or services. Majority of the respondents stated that evaluation criteria ensure that the lowest priced bid has been selected. Evaluation criteria ensure that the selected bidder does not really have to be the lowest. The results also indicated evaluation criteria has a moderate positive correlation with service delivery ($R = 0.441$). The p-value was 0.000 which is less than 0.05 therefore according to the results, the hypothesis that: evaluation criteria have no significant influence on service delivery in public hospitals in Nakuru County Kenya was rejected.

5.2.2 Suppliers Capacity on Service Delivery

The results on the influence of supplier's capacity on service delivery revealed that public hospitals select suppliers based on knowledge and experience relevant to procurement requirement. Other factors that public hospitals consider include technical skills such as plant and equipment. The results indicate that supplier capacity has a moderate positive correlation with service delivery ($R^2 = 0.430$). From the findings, the p-value was 0.000 which is less than 0.05 therefore the hypothesis that: supplier capacity has no significant influence on service delivery in public hospitals in Nakuru County Kenya was rejected. The findings are in consistent with Moeti (2007) who argued that all bidders should be invited to attend the awarding of tenders, as this goes a long way towards mitigating claims by bidders and other interested parties of tenders having been unfairly awarded.

5.2.4 Technology in Bidding Process on Service Delivery

The findings on the influence of technology in bidding process on service delivery revealed that well defined technological infrastructure ensures integrity and transparency of procurement records. The Adoption of technology in procurement operations result to reduced lead time, 44% of the respondents stated that adoption of technology in the bidding process provides an equal opportunity to all the bidders. The results indicate that technology has a moderate positive correlation with service delivery ($R = 0.441$). From the findings, the p-value was 0.000 which is less than 0.05. Therefore according to the results, the hypothesis that: technology has no significant influence on service delivery in public hospitals in Nakuru County Kenya rejected. The findings are consistent with Berger and Humphrey (2007) who noted that the use of technology has not been fully embraced in the practice of undertaking procurement activities.

5.2.5 Service Delivery in Public Hospital

According to the findings majority of the respondents agreed that majority of patients always come back when in need of service. Majority of the respondents also agreed that services offered are worth the cost. They further agreed that patients are attended within the set time-lines. Majority of the respondents also agreed that general patient satisfaction surveys are conducted. The R-squared in this study was 0.770, which shows that the four independent variables (bids placing, evaluation criteria, supplier's

capacity and technology) can explain 77.0% of service delivery in public hospitals while other factors explain 23.0%. According to the intercept (β_0), when the four independent variables are held constant, the value of service delivery in public hospital in Nakuru County will be 0.038. In addition, holding all the other independent variables constant, a unit increase in bids placing would lead to a 0.596 improvement in service delivery in public hospital in Nakuru County. The relationship was significant as shown by a p-value of 0.000. Further, holding on the other independent variables constant, a unit increase in evaluation criteria would lead to a 0.233 improvement in service delivery in public hospital in Nakuru County.

5.3 Conclusions

From the findings the researcher concluded that non-competitive bidding is used to procure unique contractor expertise or services. From the findings the researcher also concluded that hospitals use non-competitive contracting process to avoid delays occasioned with competitive procurement. Public hospitals consider non-competitive bidding when the requirements are of such an unusual and compelling urgency. From the findings the research concluded that bid placing has a significant influence on service delivery in public hospital in Nakuru County Kenya.

In relation to the second objective, it can be concluded that the evaluation criteria ensures that the selected bidder is reliable. From the study it can also be concluded that evaluation criteria ensures the uprightness of the bidders. Evaluations develop the rapport and communication protocol that it's important in the delivery of quality products and services. Among all factors the main evaluation factor that public hospital considers is cost or price. From the findings the research concluded that evaluation criteria have a significant influence on service delivery in public hospital in Nakuru County Kenya.

On the third objective, it can be concluded that public hospitals consider the financial status when sourcing for suppliers. Hospitals consider the capacity of a supplier to provide quality product and services. From the findings the researcher further concluded that hospitals consider the duration of time in business when sourcing for supplier. From the findings the research concluded that supplier capacity has a significant influence on service delivery in public hospital in Nakuru County Kenya.

On the forth objectives it can be concluded that low computer literacy among employees hinders the adoption of E-procurement which negatively affect service delivery. Resistant to change in technology negatively affects the bidding process. Well conversant employees to technology ease the bidding process. From the findings the research concluded that technology in bidding has a significant influence on service delivery in public hospital in Nakuru County Kenya.

5.4 Recommendations

In the light of the foregoing findings, the study recommends that;

The study established that competitive procurement contracting practices had the most significant influence on service delivery. The study therefore recommends that the public hospitals should formulate more policies to emphasize on the use of competitive procurement contracting practices as they will help to reduce corruption, ensure quality and low cost as well as improve service delivery.

To ensure the quality of contractors, the evaluation criteria should be done comprehensively. Public hospitals should only be evaluated in terms of the criteria stipulated in the bidding documents. Amending the evaluation criteria after closure of the bids should not be allowed, as this would jeopardize the fairness of the system. Points scored for price must be added to points scored for goals before the contract is awarded to the bidder who scores the highest points

Instead of being biased towards the lowest price, selection criteria should include quality, time, delivery, service, flexibility, financial status, capabilities, ethics, and social responsibility. And adequate influence should be placed. The procurement and provisioning procedures in government are overly rule driven, where value for money is almost always equated to the lowest price tendered. The emphasis is almost exclusively focused on the monitoring of inputs, with little or no regard to the outcomes of tendering processes.

Lack of skills is one of the greatest challenges to the implementation of technology in procurement process, therefore public organization should make it a requirement for all the procurement officers to be computer literate. Majority of public hospitals has

inadequate technological infrastructure to fully adopt IT in procurement process therefore, they should invest more on IT infrastructure.

5.4.1 Suggestions for Further Studies

The study recommended that a replication of the above study should be carried out in another county in order to establish whether similar findings will be obtained. The study also recommended that further research should be carried out to assess the impact of non-competitive contracting on service delivery in hospitals.

REFERENCES

- Acquaye, O., Mokwena, M., & Kinck, E. (2011). Protesting for Improved Public Service Delivery in South Africa's Sedibeng District. *Social Indicators Research, 119*(1), 1-23.
- Agagu, A. (2008). Re-inventing the Nigerian public service in an Age of Reforms. *Pakistan Journal of Social Sciences, 5*(3), 243-252.
- Agere, S. (2001). Promoting Good Governance: Principles, Practices and Perspectives; Management Training Services Division. London: *Common Wealth Secretariat. 44*(12), 144-152.
- Amaratunga, F., & Baldry, G. (2002). Contracting for Performance: *No More "Acquisition Think"*. *Government Procurement, 11*(5), 14-16
- Ameyaw, C., Mensah, S., & Osei-Tutu, E. (2012). Obstacles to the procurement reforms in Ghana. *Journal of Public Procurement and Contract Management, 5*(7), 224-374.
- Anget, L., Yadav, P., Miller, R. & Wilkerson, T. (2005). Strategic contracting practices to improve procurement in public institutions. *Global Health Science Practise, 2*(3), 295-306.
- Ariely, T. & Simonson V. (2003). Impact of the Public Procurement Act, 2003 (Act 663) in Ghana integrity initiative's perspective. *Paper presented at a special forum on improving efficiency and transparency in public procurement through information dissemination.*
- Arney, N., Ujunju, M., & Wepukhulu, R. (2013). Effects of Business Process Re-engineering on Implementation of Financial Management Systems: A Case of Masinde Muliro University of Science and Technology. *Research Journal of Finance and Accounting, 4*(12), 90-97.
- Arora, A., Greenwald, K., Kannan, A. & Krishnan, R. (2007). Effects of information revelation policies under market structure uncertainty. *Forthcoming in Management Science 16*(9), 144-174.
- Azeem, V. (2007). "Impact of the Public Procurement Act, 2003 (Act 663) in Ghana Integrity Initiative's Perspective. *Improving Efficiency and transparency in Public Procurement through Information Dissemination. 36*(9), 111-124.
- Babich, K. & Pettijohn, A. (2004). Purchasing strategies in supply relationships. *supply chain Management. 13*(9), 139-165.

- Batenburg, S. & Versendaal, A. (2006). Progress on E-Procurement: Experiences from Implementation in the UK Public Sector. *Journal of Purchasing and Supply Management*, 13(4), 294-303.
- Bower, A. (2012). Integrating quantitative and qualitative research: how is it done? *Qualitative research*, 6(1), 97 – 113.
- Caroline, A. (2014). Implementation of the Government Electronic Procurement System in the County of Mombasa, Kenya. *Procurement Journal*. 14(18), 137-147.
- Chene, M. (2009). The Implementation of Integrated Financial Information Management Systems (IFMIS). *Transparency International*. 19(2), 13-33.
- Chesang, A. (2013). Procurement policy and contracting efficiency. *International Economic Review*, 34(4), 873-875
- CIPS Australia. (2005). How do we measure up An Introduction to Performance Measurement of the Procurement Profession. 18(9), 138-142.
- Clough, H., Sears, A., & Sears, S. (2006). Construction Contracting :A Practical Guide to Company Management. 35(3), 73-75
- Cooper, D., & Schindler, Y. (2003). *Business Research Methods*. New York: McGraw-Hill 5(1), 18 – 24.
- Cooper, H., & Schindler R. (2006). Infrastructure public-private partnerships, *Management and Development*. Berlin New York: 11(2), 108 – 114.
- Cramton, P., & Ausubel, M. (2006). Dynamic auctions in procurement. *Handbook of Procurement*. Cambridge, England: Cambridge University 11(6), 132-134.
- Crowley, G., & Hancher, E. (1995). Risk Assessment of Competitive Procurement. *Journal of Construction Engineering and Management*. 121(2), 230-237.
- Crown Agents. (1998). The World Bank Procurement Audit in Ghana. *Value for Money Audit Report for Ghana*, Crown Agents for Overseas Governments and Administrations Ltd, UK 18(21), 118 – 124.
- Dai, R., Narasimhan, D., & Wu, J. (2005). Buyer's efficient e-sourcing structure: Centralize or decentralize. *Journal of Management Information Systems* 22 (2), 141-164.
- Denhardt, B., & Sebastian, J. (2000) A detailed analysis of the relationship between contract administration problems and contract type. *Journal of Public Procurement* 6(1), 97 – 113.

- Doyle, B. & DeStephanis, E. (1990) *Contract Administration (CA)*. Washington D.C.: *National Institute of Government Purchasing* 36(11), 137-14.
- Dumond, A., Fee, R., & McIlroy, J. (2004). Best practice Procurement: *Public and Private Sector* 22(12) 33-35.
- Elmaghraby, W. (2007). Auctions within e-sourcing events. *Forthcoming in Production and Operations Management* 16(5), 123-125.
- Fisher, C., & Lovell, A., (2009). Business Ethics and values: Edinburgh Gate, England: Pearson Education Ltd. *Individual, Corporate and International Perspectives*. 14(4), 126-129.
- Forgor, E. (2007). Proposed amendments to make procurement flexible: *The practical experiences of District Chief Executives with respect to the implementation of the Public Procurement Law, Decentralization Agenda*, 15(3), 1-3.
- Gall, H. & Borg, T. (2003), *Public Finance Fundamentals*, 1st edn., Juta Academic, South Africa. 35(9), 149-152.
- Gildenhuis, J. (2002). Research design. *Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks CA: Sage. 39(7), 147-157.
- Hardy, C. (2011), Bid Evaluation Study for the World Bank, University of Manchester. Institute of Science and Technology, UK. *International Journal of Business and Social Science*, 75(11), 36-39.
- Harry, E., Entwistle, T., & Martin, S. (2006). From Competition to Collaboration in Public Service Delivery: *A New Agenda for Research*. *Public Administration*, 83(1), 233-242.
- Hendriks, C. (2012). Integrated Financial Management Information Systems: Guidelines for effective implementation by the public sector of South Africa. *SA Journal of Information Management*, 14(1), 529-538.
- Hunt, W., Logan, H., Corbetta, H., Crimmins, H., Bayard, P., Lore, E., Bogen, A., (2006), Contract award practices, *International Journal of Business and Social Science*, 5(8), 31-37.
- Jankowicz, A. (2005). The role of supply chain tools and techniques. *Journal of supply chain Management*. 44(11), 111-123.
- Jiangsu Provincial Construction Commission (2013). *Jiangsu Province regulations on the procedure of call for tendering, tender open, tender evaluation for construction projects*, Ordinance 67(1), 234-252.

- Khayota, T., & Martin, S. (2014). From Competition to Collaboration in Public Service Delivery: A New Agenda for Research. *Public Administration*, 83(1), 233–242.
- Kirton, M. (2012). *Gender, Trade and Public Procurement Policy: Kenya, Australia, Jamaica*. 83(1), 233–242.
- Knudsen, L. (2009). *Business Research Methods*. Copenhagen: Ventus Publishing. 73(3), 234–237.
- Kombo, T., & Tromp, S. (2006). Spatially and Temporally Optimal Biomass Procurement Contracting for Biorefineries. *Bioresources*, 9(2), 2069–2089.
- Kothari, C. (2004). *Research methodology: Methods and techniques*. New Delhi: New Age International (P) Limited Publishers. 73(3), 234–237.
- Koushki, R. (2005). Contracting for Performance: No More "Acquisition Think". *Government Procurement*, 11(5), 14–17
- Koushki, T. (2005). The Impact of Contracting Out on the Costs of Refuse Collection Services: The Case of Ireland. *The Economic and Social Review*, 31(2), 129–150.
- Kovacs, G. & Spens, K. (2008). "Abductive reasoning in logistics research". *International Journal of Physical Distribution & Logistics Management*. 35(2), 132–144.
- Ku, T., & Murnighan, R. (2005). Procurement policy and contracting efficiency. *International Economic Review*, 34(4), 873–874.
- Kumar, A., Ozdamar, L., & Ng, P. (2005). Procurement Performance Measurement System in the health care industry. *International Journal of Health Care Quality Assurance*, 18 (2), 152–166.
- Kumarappan, S. & Joshi, S. (2014). Spatially and Temporally Optimal Biomass Procurement Contracting for Biorefineries. *Bio Resources*. 4(9), 2069–2089.
- Lai, K., Liu, S., & Wang, S. (2014). "A method used for evaluating bids in the Chinese construction industry", *International Journal of Project Management*, 22(5), 193–201.
- Lalive, R., & Schmutzler, T. (2007). Exploring the effects of competition for railway markets. *Working Paper*, University of Zurich, Socioeconomic Institute. 45(6), 143–145.
- Lardenoije, D., Van Raaij, K., & Van Weele P. (2005). "GMS Trade-Trends and Patterns", in P. Srivastava and Kumar (eds.): *Trade and Trade Facilitation in*

- the Greater Mekong Sub region*, (Mandaluyong City, Philippines, Asian Development Bank).34(22), 147-149.
- Lerberghe M. (2004). Using public procurement to achieve social outcomes.*Journal of supply chain Management*.55(11) 133-134.
- Lowe, J., &Parvar, J. (2004).A logistic regression approach to modelling the contractor's decision to bid.*Construction Management & Economics*, 22 (6), 643-653.
- Lyons,.R. (2005). Public Procurement and Contracting In Bangladesh: An Analysis of the Perceptions of Civil Servants. *Journal of Public Procurement*, 7(3), 381-398.
- Lysons, K. & Farrington, B. (2006). Purchasing and Supply Chain Management, 7thEdition Prentice Hall. *Journal of Public Procurement* 8(4) 134-136.
- Marley,A., Collier, A., Goldstein, M. (2004). The role of clinical and process quality in achieving patient satisfaction in hospitals.*International Journal of Economics, Commerce and Management*23(35), 349–369.
- Martinez-Martinez, J. (2008). Effective ERP and Supplier Coordination for Procurement Performance: A cross national study. *Inter Metro Business Journal*, 4 (2),44-47.
- Maurer, R. (2014). *Enterprise Resource Planning*. New Delhi: TATA McGraw Hill Education. 6 (32),54-57.
- Moeti, M. (2007). Critical Analysis of Strategy Implementation on Organization Performance in Service Delivery: Case of Lake Victoria South Water Services Board in Kisumu. *European Journal of Business and Management*, 6(30), 192-201.
- Monczka, M., Petersen, J., Handfield, B. &Ragatz, L. (2014). Success factors in strategic supplier alliances: the buying company perspective. *Decision Sciences*, 29(3), 553-577.
- Moore, H. (2005).Subcontracting and competitive bidding on incomplete procurement contracts.RAND*Journal of Economics* (Wiley-Blackwell), 45(4), 705-746.
- Moore, T. (2005). Public Procurement and Contracting In Bangladesh: An Analysis ofthe Perceptions of Civil Servants. *Journal of Public Procurement*, 7(3), 381-398.
- Mugenda, O., &Mugenda, G. (2012). Research Methods: *Quantitative and Qualitative Approaches*. Nairobi: African Centre for Technology Studies.55 (11), 133-134.

- Muturi, W. (2015). Factors Affecting Performance of Procurement Functioning Among Public Technical Training Institutions in Kisumu County, Kenya. *International Journal of Economics, Commerce and Management*.3 (5), 45-67.
- Mwangi, M. (2014). The impact of public procurement policy on teaching and learning in selected public secondary schools in Kahuro district, Murang'acounty, Kenya. *Journal of supply chain Management*. 44(12), 144-152.
- Ngugi, J. & Mugo, M. (2012). Procurement practices in the Public sector: A survey of Kenya Pipeline Company: *Unpublished MBA project, University of Nairobi*.57(10), 147-152.
- Njihia, W. (2015). Determinants of Performance of Integrated Financial Management Information System in Public Sector in Kenya : a Case of National Treasury. *Journal of Business & Change Management*, 2(90), 1243–1284.
- Ntayi, J. Byabashaija, S., Eyaa, S., Ngoma, M., & Muliira, A. (2009). Social Cohesion, Groupthink and Ethical Behavior of Public Procurement Officers, *Journal of Public Procurement*, 10(1), 68 –92.
- Nyambane, S. (2013). Deciding on the best way to procure contracts in Kenya and save the local contractors from foreign giants. *Journal of supply chain Management*.10(6), 132-134.
- Ockenfels, A., Alvin E., & Roth, Y. (2006). “Late and multiple bidding in second price Internet auctions: Theory and evidence concerning different rules for ending an auction,” *Games and Economic Behavior*, 2006 (55), 297–320.
- Orodho, R., & Kombo, K. (2002). Research methods. Nairobi. Kenyatta university, institute of open learning. *International Journal of Economics, Commerce and Management*.39(7), 48-50.
- Orodho, A. (2009). Element of Education and Social Science Research Methods Maseno Kenezja Publishers. *International Journal of Economics, Commerce and Management*.35(4), 43-47.
- Patrick, A. (2008). Complement Theories to supply chain management. *Supply Chain Management: An International Journal*, 5(12) 290-296.
- Parkera, D. & Hartley, K. (2003). Transaction costs, relational contracting and public private partnerships: a case study of UK defense. *Journal of Purchasing & Supply Management*, 5(9), 97–108.
- Pauw, S. (2002). The elements of public procurement Contracting practices in Kericho District. *Perspectives International Purchasing and Supply Education*

Research Association. Conference. Aldershot, Hampshire, England; Burlington, VT: Gower 45(39), 107–108.

- PPDA (2008). Report on Compliance Checks undertaken on 120 *Procuring and Disposing Entities*.
- Rodin-Brown, E. (2008). Prospering in dynamically-competitive environments *Journal of supply chain Management*. 36(4) 144-148.
- RoK. (2013). Report on county governments finance performance for March to June. Nairobi: *Office of Controller of Budget*. 39(5), 131-133.
- Saaty, F. (2011). The Power to Procure: A Look inside the City of Austin Procurement Program, *Applied Research Projects, Texas State University*. 37(6), 134-136.
- Salim, A. (2013). The role of procurement contract management in the effectiveness of project management in Tanzania, the case of Millicom Tanzania (TIGO), *Research paper for award of CPSP by PSPTB, Dar es Salaam, Tanzania*.
- Sanghera, P. (2008). Fundamentals of effective program management: *a process approach based on the global standard*. 102(69), 207–208.
- Selfano, F., Sarah, C., & Peninah, A. (2014). The case for procurement outsourcing. *Journal of Procurement*. 33(7), 144-146.
- Serakan, P. & Walker, D. (2003). A conceptual model of the influences on sustainable public procurement. *Journal of supply chain Management*. 36(4), 154-156.
- Talluri, B. (2008). Government procurement: market access transparency, and multilateral trade rules, " *European Journal of Political Economy*, 21(1), 163-183.
- Thai, K. (2001). "Public procurement re-examined", *Journal of Public Procurement*, 4 (1), 211-212.
- Torraco, D. (2011). Multi-attribute procurement contracts. *International Journal of Production Economics*, 1(59), 137-146.
- Trent, R., Hess, K. & Bate, R. (2007). Drug procurement, the Global Fund and misguided competition policies. *Malaria Journal*, 8 (1), 305-307.
- Trevor, L., Brown, T., Mathew, Y., & Potoski, T. (2003). Capacity in Municipal and County Governments Sector Administration Review. *A Journal on Contract Management* 63(2), 231-235.

- Van Bon , P. (2005). Subcontracting and competitive bidding on incomplete procurement contracts. *RAND Journal of Economics (Wiley-Blackwell)*, 45(4), 705-746.
- Van Weele, J. (2000). Purchasing and Supply Chain Management. *Analysis, Planning and Practice*, 3rd edition. Thomson Learning, London. 54(3), 331-335.
- Van Weele, Y. (2006). Strategic contracting practices to improve procurement in public institutions. *A Journal on Contract Management*, 2(3), 295-306.
- Ware, P., & Kynoch, A. (2013). Public Procurement Reform: *Impact on Contracting Authorities and Tenderers*. *Credit Control*, 34(3), 13-17
- World Bank. (2013). Public Procurement Act of Ghana - Country procurement assessment report. Washington D.C. - *The World Bank. Report No. 29055*. (4).
- Zack, H., & James, G. (1993). Claimsmanship Current Perspective. *Journal of Construction Engineering and Management*, 119(3), 480-496.
- Zou, W. (2014). An overview of China's construction project tendering, *International Journal of Construction Management*, 32(2), 76-97.

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

JOMO KENYATTA UNIVERSITY OF AGRICULTURE & TECHNOLOGY

P.O.BOX 62000-00200, NAIROBI, KENYA

TEL:+254-67-52711/52181-4 FAX 254-67-52164

Dear Respondent,

I am a Masters student at Jomo Kenyatta University of Agriculture and Technology from The Department of Entrepreneurship and Procurement Department. In partial fulfillment of the requirements for the award of a Master of Science Degree in Procurement and Contract Management, I am currently carrying out a study entitled

‘INFLUENCE OF COMPETITIVE PROCUREMENT PRACTICES ON SERVICE DELIVERY IN PUBLIC HOSPITALS IN NAKURU COUNTY KENYA’

This questionnaire gives you a chance to express your views on the research topic. The information you give will be treated with utmost confidentiality and will be used for the purposes of this research study only. You are therefore NOT required to write your name on this questionnaire. Your cooperation will be highly appreciated.

Thank you.

Gituru Nancy Njoki

School of Human Resources Development

Entrepreneurship and Procurement Department

APPENDIX II: RESEARCH QUESTIONNAIRE

The information herein requested is for use to meet academic requirements and as such shall be treated with utmost confidentiality. No full or part of the information shall be disclosed to the government, any authority or potential competitors, and hence any form of victimization shall not be leveled to the informant for whichever kind of information.

SECTION A: GENERAL INFORMATION

1. Gender

Male Female

2. State your highest level of education

Secondary level College

University Postgraduate

3. For how long have you been working in your organization?

Less than 3 years 3 to 9 years

9 to 12 years Above 12 years

SECTION B

In a scale of 1-5 indicate the level of agreement regarding the following statement

Key

5= Strongly Agree

4= Agree

3= Undecided

2= Disagree

1= Strongly Disagreed

BIDS PLACING

In a scale of 1-5 Indicate the level of agreement on the influence of bids placing on service delivery

		5	4	3	2	1
i.	The organization always seeks competitive bids from its suppliers for service provision over a particular period of time					
ii.	Competitive bidding ensure productivity and quality are attained					
iii.	Competitive bidding ensures there is value for money					
iv.	Non-Competitive bidding is used to procure unique contractor expertise or services					
v.	Non- Competitive is used to avoid delays occasioned if a competitive procurement was to be used.					
vi.	Non-competitive bidding is appropriate when the requirements are of such an unusual and compelling urgency					

EVALUATION CRITERIA

In a scale of 1-5 Indicate the level of agreement on the influence of evaluation criteria on service delivery

		5	4	3	2	1
i.	Evaluation criteria ensure that the selected bidder does not really have to be the lowest.					
ii.	The government does not use evaluation criteria when seeking a unique contractor expertise or services					
iii.	Evaluation criteria ensures that the lowest priced bid has been selected					
iv.	Evaluation criteria ensures that the selected bidder is reliable					
v.	Evaluation criteria ensures the uprightness of the bidders					
vi.	Evaluations develop the rapport and communication protocol that it's important in the delivery of quality products and services					

SUPPLIER S CAPACITY

In a scale of 1-5 Indicate the level of agreement on the influence of suppliers capacity on service delivery

		5	4	3	2	1
i.	Hospitals consider technical skills such as plant and equipment.					
ii.	Suppliers are selected based on knowledge and experience relevant to procurement requirement					
iii.	Hospitals consider financial status when sourcing for suppliers					
iv.	Suppliers are selected on the bases of quality of product and services					
v.	Hospitals consider the duration of time in business when sourcing for supplier					

TECHNOLOGY

In a scale of 1-5 Indicate the level of agreement on the influence of technology on service delivery

		5	4	3	2	1
i.	Well defined technological infrastructure ensures integrity and transparency of procurement records					
ii.	Adoption of technology in procurement operations result to reduced lead time					
iii.	Adoption of technology in the bidding process provides an equal opportunity to all the bidders					
iv.	Low computer literacy among employees hinders the adoption of E-procurement which negatively affect service delivery					
v.	Resistant to change in technology negatively affects the bidding process.					
vi.	Well conversant employees to technology ease the bidding process.					

SERVICE DELIVERY

In a scale of 1-5 Indicate the level of agreement on service delivery in health facilities in Nakuru County

		5	4	3	2	1
i.	Majority of patients always come back when they fall sick					
ii.	Patients are attended within the set time-lines					
iii.	The hospitals receive new patients who are referred by their friends.					
iv.	Customers are satisfied with the service provided					
v.	General patient satisfaction surveys are conducted					
vi.	Compliance with a treatment plan is monitored					

APPENDIX III: LIST OF HOSPITALS IN NAKURU COUNTY

Name of Hospital	Departments	Procurement Officer	User Department	Medical officer in charge	Total
Provincial General Hospital	Njoro Sub-County Hospital. Mirugi Kariuki sub-county Hospital	2	17	3	22
Naivasha District Hospital	Gilgil Sub County Hospital	1	12	2	15
Bahati District Hospital	Subukia Sub-County Hospital. Kabazi Sub-county Hospital	1	15	3	19
Molo District Hospital	Keringet Sub-County Hospital Elburgon Sub-county Hospital Olenguruone Sub-county Hospital	1	19	4	24
Total		5	63	12	80

Source: County Government of Nakuru Health Records (2017)