

**PERCEIVED INFLUENCE OF CONTRACTOR
SELECTION CONSIDERATIONS ON TIMELY
COMPLETION OF PUBLIC WORKS PROJECTS IN
KISUMU COUNTY GOVERNMENT, KENYA**

ONYANGO SILVIA AUMA

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DECLARATION

This research project is my original work and has not been presented for award of any degree or diploma in this or in any other College or University.

Signature

Date.....

ONYANGO SILVIA AUMA

D61/73168/2014

This research project has been submitted with my approval as University supervisor.

Signature.....

Date.....

Mr. Gerald Ondiek

Lecturer School of Business, Operations Department

University of Nairobi

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DEDICATION

I dedicate this study to my sons Frank, Moses Senior, Daniel, Samuel, Victor and Moses Junior for their support and understanding during the entire graduate studies.

ABSTRACT

Public works projects play an important role in promoting Kenya's socio-economic development. However, these projects are hardly completed in time, with some being abandoned. Research has documented the critical role that managerial perceptions play in contractor selection considerations in the procurement of public works projects. Perceptions of procurement managers in the award of contracts has assumed new impetus following the revised Kenya's Public Procurement and Disposal Act (2015), which gives a lot of discretion and power to public procurement managers in procurement decisions. Research confirm that perceptions of procurement managers may influence the decisions made during the awarding process of public works projects and that these decisions may increase or reduce the time that contractors may take to complete these projects. However, few studies have examined the potential influence of procurement managers' perceptions on contractor selection considerations on the timely completion of public works projects. The purpose of the study was to examine the perceived influence of contractor selection considerations on timely completion of public works projects in Kisumu County. The study had four objectives, namely to establish the extent to which perceived past performance of contractors influence timely completion of public works projects in county government of Kisumu; examine the extent to which perceived low price consideration influence timely completion of public works projects in county government of Kisumu; assess the extent to which perceived project management capability of contractors influence timely completion of public works projects in county government of Kisumu; investigate the extent to which perceived technical capacity of contractors is perceived by procurement officers to influence timely completion of public works projects in county government of Kisumu. A census of all the 30 procurement managers in the county's public procurement entities was conducted. A self-administered questionnaire was used to collect data from the respondents. Out of the 30 managers, 22 procurement managers accepted to participate in the study giving a response rate at 73%. Both descriptive and inferential statistics were used to analyze the data. Contractors' Technical Capability (100%) was the most highly perceived selection consideration that may influence timely completion of public works projects; contractors' Past Performance (95.8%) was the second highly perceived selection consideration that may influence timely completion of public works projects; contractor's Project Management Capability (91.7%) was the third highly perceived selection consideration that may influence timely completion of public works projects; with Low Cost Bid (79.2%) as the least perceived selection consideration that may influence timely completion of public works projects. These findings are important since the highly prioritized selection considerations should be taken into considerations when a county government makes decision to award or not to award. It is recommended that a study should be conducted that should include more counties with a larger sample size. Increasing the number of counties and procurement managers may lead to study findings that can be generalized to the rest of the county governments in Kenya. It is further recommended that further studies should be conducted to find out the how perceived influence of contactors selections considerations on timely completion of public works in various counties Implications for this study are discussed.

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
CGK	County Government of Kisumu
CGs	County Governments
CS	County Secretary
ECD	Early Child Education
HPS	Head of the Public Service
KUP	Kisumu Urban Program
NCST	National Council of Science and Technology
NEPAD	New Partnership for Africa's Development
SMHP	Sondu Miriu Hydroelectric Power
UNCTAD	United Nations Commission for Trade and Development.
UON	University of Nairobi
USA	United States of America

CHAPTER ONE:INTRODUCTION

1.1 Background to the Study

Public works projects have been widely implemented in developed and developing countries to promote socio-economic development (Beazley &Vaidya 2015). The main attraction of public works projects to governments and donors lies in their potential to promote the protective capacities of communities, while at the same time reducing risks associated with underdevelopment. However, for public works project to promote the desired socio-economic development, they have to be completed in time.

There are a number of theories that are relevant to the issue of contractor selection and timely completion of public works projects. The Public Value Theory (Moore, 1985), for instance, posits that public entities must ensure that the services they offer to the public must be of the highest quality and acceptable. Applied to the current study, the selection of contractors for public works projects must ensure that only the best selection considerations and the most competent and qualified contractors are selected to provide the best public value. The Principal –Agent Theory (Eisenhardt, 1988, 1989), is relevant to the study.

The Principal –Agent theory, in the context of the current study posits that since public procuring entities execute procurement functions on behalf of the public, they must behave and act as trusted agents on behalf of the public who are the principals, and public procurement entities must ensure that procurement decisions are made in the best interest of the public. Both theories provide strong theoretical foundations for understanding the dynamics of contractor selection considerations and time overruns that public procurement entities in Kenya are likely to face.

Research conducted in Kenya has provided insightful information on the issue of overruns in public works projects. Mbatha (1986) looked at delays in completing public works projects implemented by parastatals in Kenya. The study attributed time delays to inadequate designs, lack of understanding of project scope and size, poor project management and inadequate cost estimates.

County governments in Kenya were established after the promulgation of the 2010 Constitution, with the expectations to provide quality and timely services to the people of Kenya. The implementation of public works projects is a devolved function, and each county government in Kenya is expected to establish structures that support the Operationalization of the devolved public works function.

The County Government of Kisumu is one of the forty-seven county governments established after the promulgation of the 2010 Constitution. It implements its public work projects like canals, bridges, freeway expansion, renovations, among others through a number of departments, with each department given the responsibility of procuring contractors to carry out public works projects relevant to its needs, and as in the approved budget for each fiscal year. These projects are anticipated to spur the county's socio-economic development. However, few studies have been conducted to establish the extent of time overruns in the implementation of public works projects implemented by the County Government.

1.1.1 Managerial Perception

Understanding managerial perception of supply chain and procurement specialist is important. Zsidisin (2003) argues that since supply chain and procurement functions have a lot of risk, these risks can be mitigated and effectively managed if the supply chain and procurement managers, who make the decisions, have high risk perception.

When procurement managers do not perceive risks in supply and procurement functions, it becomes difficult to mitigate and manage the risks. The perception of supply chain managers is critical to the way they manage supply chain risks and the decisions they make when awarding contracts. Understanding the influence of managerial perception in supply chain and procurement functions helps in understanding the decisions and risk management strategies in supply chain functions. Carter, et al (2010) sought to determine the influence of managerial perceptions and procurement decision making. The research results show that procurement managers selected regions they perceived to have low-cost sourcing based on both specific measures and individual and/or group perceptions of the region, whether these perceptions were correct or not. The researchers pointed out the need for procurement specialists to be aware of the role of managerial perceptions in supply chains and to minimize the effects of prejudged reality. These views are relevant to the current study in the sense that the selection of contractors in public procurement entities must take into considerations the risks that may arise from wrong perceptions and selection decisions.

1.1.2 Contractor Selection

Contractor selection is a critical procurement function (Gajurel 2014). It refers to the process of identifying a contractor who is capable of delivering project within a specified time and within the approved budget. The researcher argued that contractor selection considerations are varied but are mostly based on contractor's ability, experience, capacity to carry out the project within the agreed timelines and budget, and being abreast with emerging and new construction approaches, ability to handle

risk, past performance, qualification of staff and the technical ability to complete the work.

Contractor selection has been found to be of great influence in the delivery of public works projects and the overall success of these work projects (Sambasivan & Soon, 2007). Contractor selection is an important part of procurement process that is well worth investing plenty of time and resources in. Poor decisions that are made by public procuring entities in the selection of contractors to undertake their public works projects or project of any nature, can materially affect the outcome of these project.

1.1.3 Timely Completion of Public Work Projects

Public works projects are implemented to address socio-economic challenges facing citizens and communities (Beazley & Vaidya 2015). To ensure return on investments, public works projects must be implemented in a timely way. Timely completion of projects refers to the fixed day in the calendar (including weekends and holidays) on which work is done and completion day specified in a contract to complete or substantially complete a job or project. Zohar and Ralph (2015) define timely completion as the maximum time allowed in the contract for completion of all work contained in the entire contract document. Chan and Kumaraswamy (1995) define completion time as executing projects within the agreed timeliness.

Time is of great essence in the implementation of public works and hence time management is critical in determining the quality of these projects (Zohar & Ralph, 2015). Timely completion of projects, and more so public works and construction projects has assumed a critical dimension in the decisions that procuring entities, both public and private must contend with.

1.1.4 Contractor Selection and Timely Project Completion

Contractor selection decisions and considerations made by procuring entities have the potential to influence the time that a procured project will take (Sambasivan & Soon, 2007). Research conducted by Sweis (2008) found that poor selection of contractors by the procuring entities led to delays or and in some cases abandonment of public works projects, with adverse effect on the on the economy.

Whereas public works projects play a catalytic role in the social and economic development of any country, procuring entities have not given serious attention to selection of contractors (Alaghbari et al., 2007), leading to time overruns and in a number of cases complete abandonment of these projects (Sambasivan & Soon, 2007).

However, there is no agreement among scholars and practitioners on the overall selection methods and considerations that may reduce time overruns in public works and construction projects; and also lack of consensus on the principal causes that lead to delays in the implementation of public works (Sambasivan & Soon, 2007). The critical role of public works to developing economies like Kenya calls for understanding contractor selection considerations that may ensure timely and quality completion of these projects.

1.1.5 Public Works in Kisumu County

The County Government of Kisumu is one of the forty-seven county governments established after the promulgation of the 2010 Constitution. While the County's Department of Public Works is mandated to facilitate provision and maintenance of building and other public works within Kisumu County, all the county departments also undertake a number of public works projects related to their needs and strategic

plans. Like the other departments, the Department of Public Works selects and procures contractors to carry out approved public works projects relevant to the County's development priorities and emerging needs.

The department is also charged with the responsibility of planning, designing, construction and maintenance of government assets in built environment which includes hospitals, schools, colleges, technical institute, prisons and courts. According to the 2015-2020 Strategic Plans for the County's Department of Works, the department is tasked with ensuring that public works projects that are funded by the tax payers' money benefit the entire county by ensuring quality buildings and other public works for sustainability and socio economic development.

1.2 Research Problem

Public works projects play an important role in promoting socio-economic development (Beazley & Vaidya 2015). Research indicates that among other factors, contractor's past performance, project management capability, technical competencies and the low bid price are critical selection considerations that may greatly determine the timely completion of public works projects (Sambasivan & Soon, 2007).

Studies conducted in Kenya have shown that public works projects are hardly completed in time, with a number of these projects being abandoned (Kagiri, 2005), with poor contractor selection decisions blamed for the time overruns and poor quality of these projects (Kimani, 2004). However, these studies did not examine the role of contractor selection considerations made by public procuring entities in the timely completion of these projects. Moreover, research has documented the critical role that managerial perceptions play in contractor selection considerations in the procurement of public works projects.

Kagiri (2005) looked into time overruns in power projects in Kenya. The research identified a number of factors that influence or causes time overruns namely; contractor inabilities, improper project preparation, resource planning, interpretation of requirements, works definition, timeliness, government bureaucracy, and risk allocation as having been significant contributors to overruns. These projects had time overruns ranging from (-4.6% to 53.4 %), while the cost overruns varied between (9.4% and 29%).

Kimani, (2004) found major causes of project delays as unresolved financing of project; design changes during execution; unrealistic plan and short time for execution; material, plant or labour shortage; climate/weather changes. Poor management causes budget and time overruns and strained relationship among project participants.

Musa (1999) conducted a study on factors influencing delays in water projects in Kenya funded by the Government and the study found lack of capacity of contractor to execute projects diligently contributed to delay in these projects. A related study by Karimi (1998) on public works projects under the Ministry of Water found that most of the projects experienced delays due to the fact that the clients delayed in honoring payments to contractors.

In view of the revised Kenya's Public Procurement and Disposal Act (2015) that has puts a lot of premium on the professional opinions and perceptions of public procurement managers in the award of contracts, and in view of the responsibility that County Governments have in implementing public works projects, there is need to undertake a study to establish the extent to which contractor selection considerations are perceived by county government procurement managers to influence the timely completion of public works projects implemented by the County Government.

This study will intend to answer the following four research questions; to what extent does perceived past performance of contractors influence timely completion public works projects implemented by county Government of Kisumu? To what extent does perceived low price bid by contractors influence timely completion public works projects implemented by county Government of Kisumu? To what extent does perceived Project management capability of contractors influence timely completion of public works projects implemented by the County Government of Kisumu? And to what extent does perceived technical capacity of contractors influence timely completion of public works projects implemented by the County Government of Kisumu?

1.3 Objectives of the Study

The study had four objectives, namely to:

- i. Establish the extent to which past performance of contractors is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of Kisumu;
- ii. Examine the extent to which low price bid is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of Kisumu;
- iii. Assess the extent to which project management capability of contractors is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of Kisumu;

- iv. Investigate the extent to which technical capacity of contractors is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of Kisumu.

1.4 Value of the Study

The study is expected to contribute to the project procurement and supply chain management body of knowledge. The findings from this study will also contribute to new research on public procurement in Kenya in view of the new public procurement and disposal legislation.

The study may also lead to the reviewing of the revised Public Procurement and Disposal Act (2015) if it provides evidence that the professional opinion and discretion of procurement officers may negatively affect the timely completion of projects implemented by national and county governments. This would ensure efficiency in the projects implemented by the county government.

The study will also greatly contribute in the debate about how to improve efficiency and effectiveness of projects implemented by county governments particularly with regard to scheduling and time management.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter represent a review of the literature on Public Value Theory and the Principal-Agent Theory, Managerial Perceptions, Past Performance of Contractors, Low Price Bid Consideration, Project Management Capability of Contractors, Technical Capability of Contractors, Timely Completion of Projects, and Summary of the reviewed Literature.

2.2 Theoretical Framework

A theoretical framework or literature refers to literature from previous research that defines a study's core theory and concepts and relevant definition that are used in specified field of study (Swanson (2013). Theories are formulated to explain, predict and understand phenomena and in many cases to challenge and extend existing knowledge within the limits of critical bounding assumptions. The theoretical framework introduces and describes the theory that explains why the research problem under study exists. This study is guided by the Public Value Theory and the Principal-Agent Theory, which are briefly reviewed.

2.2.1 Public Value Theory

Public value has been described by Constable et al (2008) a comprehensive approach thinking about public management and about continuous improvement in public services. Moore (1985) defines public value as a framework that helps public managers to connect what they believe is valuable for the public and which requires public resources for its implementation. Benington (2011) interprets public value as

reconciling, safeguarding and enriching of the public sphere with delivery of services and products that are valued by citizens and the general public.

Public Value Theory has emerged as a defining framework for assessing and evaluating the decisions that are made by public managers in their attempt to deliver services that are valued by citizens and the public in general. Irrespective of lack of consensus by scholars the exact meaning of public value, or what the public values, there is global agreement that the services and the decisions that public managers make must be centered on the needs of the citizens.

Moore's (1985) central proposition is that those public resources should be used to increase value in a way which is analogous to value creation in the private sector. However, this public value would necessary extend beyond narrow monetary outcome to include that which benefits and valued by citizenry more generally.

The Public Value Theory is relevant to this study. Public procurement takes a bigger share of the national budget in Kenya and the decisions that public procurement managers make must focus on delivering valued services to citizens. Since public works projects play a critical role in the socio-economic development of Kenya, and in view of the fact that County Governments have an important responsibility in implementing public works projects, the decisions that county government procuring entities make must first and foremost focus on ensuring that citizens get value for the tax they pay. Consequently, procurement decisions that are made, and public works contractors who are procured, must ensure that they have the capacity and the competencies to implement the public works projects in time and within the government of Kenya public services quality standards.

2.2.2 The Principal–Agent Theory

The Principal –Agent Theory presumes a relationship between a principal and an agent (Eisenhardt, 1988, 1989). The theory posits that in the public sector, citizens pay taxes and entrust public administrators with the responsibility of ensuring that their taxes are used in the most economical way that deliver value to them. In this respect, citizens are the principals (owners), while public administrators are the agents (Eisenhardt, 1988, 1989).

The theory posits that the agents (public administrators) have too much information about the principal (citizen) requirement than what the principal has, leading to a problem referred to as information asymmetry (Pendergast 1999). Public administrators as agent's use may use the information and disposal to their own personal advantage at the expense of the citizens who pay the taxes and who have therefore employed them.

Procurement and supply chain management scholars have shown growing interest in the Principal- Agent Theory to understand how participants within procurement and supply sectors make decisions and manage the risks that arise from information asymmetry (Halldórsson and SkjottLarsen, 2006).

The principal –agent theory is relevant to this study. Public procurement decisions are made by public procurement managers who act as the agents on behalf of citizens. The decisions that the procurement managers make should ideally be in the best interest of the citizens who pays taxes. As they select contractors to implement public works projects on behalf of citizens and the public in general, procurement managers have a moral and legal responsibility to ensure that selected contractors have the capacity, skills and experience to implement procured public works projects in timely

and cost effective manner, and that the perceptions and decisions that they make are not clouded by personal gains, at the expense of the public.

However, Abuya (2016) have pointed to the problem of project fraud in public and private sectors, which may negate the gains that the public expect from projects implemented by county governments in Kenya, thereby undermining the principal-agent relationship.

2.3 Empirical Literature

A review of empirical literature is made on Managerial Perceptions, Past Performance of Contractors, Low Price Bid Consideration, Project Management Capability of Contractors, Technical Capability of Contractors, and Timely Completion of Projects.

2.3.1 Managerial Perception

Berelson and Steiner (1969) defined perception as the way in which something is regarded, understood, or interpreted more broadly, perception can be defined as a complex process by which people select, organize and interpret sensory stimulation into meaningful and coherent picture of the world. Perception is about selecting, acquiring, transforming and organizing the information supplied by our sense. Studies on perception can be traced back to research by Bartlett's (1932) which led to new studies on the constructive nature of cognition, thinking and human perception

According to Wang (2006) perception may be considered as the sixth sense of human beings since almost all cognitive life functions rely on it. Perception is also an important cognitive function at the subconscious layers that determines personality. In other words, personality is a faculty of all subconscious life functions and experience cumulated via conscience life.

Managerial perception of supply chain and procurement risk is important. Zsidisin (2003) argues that since supply chain and procurement functions have a lot of risk, these risks can be mitigated and effectively managed if the managers, who make the decisions, have high risk perception. On the other hand, when managers do not perceive risks in supply and procurement functions, these risks cannot be effectively managed. The perception of supply chain managers is critical to the way they manage supply chain risks and the decisions they make when awarding contracts.

Understanding the influence of managerial perception in supply chain and procurement functions helps in understanding the decisions and risk management strategies in supply chain functions (Zsidisin, 2003). These views are relevant to the current study in the sense that the selection of contractors in public procurement entities must take into considerations the risks that may arise from poor selection decisions.

2.3.2 Past Performance of Contractors

Past performance describes how well contractors have performed similar or related assignments in the past. Survey done by Oceaneering Inc (2001) states that confidence in a prospective contractor's ability to perform satisfactorily or better is an important factor in making a best –value source selection decision. It further states that one method of gaining this confidence is the evaluation of a prospective contractor's performance on recently completed or on ongoing contracts for the same of similar project.

The past performance evaluation generally address the quality of the product or services supplied by the contractors, its efforts to control cost, its timeliness and compliance with schedules. In most developed countries public agencies are required

to consider contractor past performance when making source selection decisions in negotiating procurement whose value exceeds the simplified procurement threshold (Manuel 2015).

In the (USA), for instance, Federal Laws generally require government agencies to evaluate and document past performance of a contractor before an award is given (Manuel 2015). Poor performance of contractors can have immediate consequence for contractors who could be denied award or whose contracts can be terminated prematurely. Evaluating the past performance of contractors has become critical determinant of procurement evaluation of award in government agencies.

In developing countries while public agencies make promise of making past performance to award contractors, there is evidence that few public entities actually consider past performance as a critical factor for awarding. Ling Chong (2005) conducted research in developing countries and found that few public agencies ever considered past performance of contractors as a basis for awarding contractors. Ironically, they also found long delays in completing the awarded projects and in some cases found that these projects abandoned due to the limited capacity and poor performance history of the awarded contractors. According to Lee and Artidi (2006) public agencies should seriously consider past performance of prequalified contractors before contracts are awarded.

2.3.3 Low Bid Price Consideration

There is strong research evidence that public sector that deals with procurement of construction of projects largely put their basis on the lowest bidder award system. The customary practice of awarding contractors to the lowest bidder was mainly established to ensure there is least cost of completing a project (Garrison 2010). Low

bid procurement system has a long standing history in public procurement system, concern has been raised that it does not always provide the much need value, and that projects awarded on the lowest bid system are likely to get delayed and run into trouble during inflations

Ochrana and Hrnčířová (2015) study found that contracting entities in the Czech Republic strongly prefer to use the lowest bid price criterion. The finding was obtained from a study that sampled 86.5 % of public procurements in the country. However, analysis of the examined sample of public contracts also found that the choice of an evaluation criterion, even the preference of the lowest bid price criterion, does not have any obvious impact on the final cost of a public contract. The researchers conclude that it is inappropriate to prefer the criterion of the lowest bid price within the evaluation of public contracts that are characterised by their complexity (including public contracts for construction works and public service contracts). The findings indicate that when using the lowest bid price as an evaluation criterion, a public contract may indeed be tendered with the lowest bid price, but may not necessarily give the best offer in terms of supplied quality.

Chan, et al. (2014) study found that architects' view in general was that the reduction of construction costs is not always since the contractor's cost-reduction is likely to negatively affect the design of construction projects. The traditional low bid approach tends to promote adversarial relationship rather than co-operation or coordination among the contractors, the designer and the owner which leads to unnecessary conflict which adversely lead to delays (Bedford 2009).

In a survey conducted in the Oromia regional state in Nigeria it was found that the low price bid system led to excessive time overruns, compromising quality and escalation of the final project cost from the estimated cost (Mosissa 2006). Delays in

meeting the contract duration increment of the final project cost due to high variation tendency to compromise quality and adversarial relationship among contracting parties are the major pitfall associated with the low bid award procedure.

From owners' point of view, Morris (1990) pointed out that the most frequent causes of delay are related to both contractor and labor. Results indicate that owners are realizing that awarding of projects to the lowest bidder is one of the highest frequent factors of delay.

However, Abuya (2016) has pointed to the emerging phenomenon where public sector project managers deliberately inflate the project cost to fund fraudulent and corrupt activities. The condemnation of the low cost consideration in the public sector may not be due to cost consciousness but may be a strong manifestation of project fraud. Thus, in light of this, studies that castigate the low cost bid must be interpreted with a lot of caution.

2.3.4 Project Management Capability of Contractors

Project management skills of contractors are critical for the timely completion and success of public works projects especially those involving construction. Applegate et al (1996) argued that inadequate approach to project management can have severe consequences for public works projects, since poor project management can not only impact the success of a project, but may also jeopardize client relationship which can result in project cost time overrun

Lee et al (1995), advice that project management skills and capabilities of contractors should be a major consideration in the award of contracts. Kirsch's study (2000) found that successful project management is critical to the timely completion of construction projects. Kirsch (2000) suggest that managers in public works

/construction projects should take on leadership role with respect to not only managing the project but also leading the technological initiative, and that project manager should be able to advice project team members as well as the client on various technology options available to the public projects.

Lee et al (1995) argue for improved interpersonal and project management skills among public works project manager, vendors and contractors, to enable them effectively manage internal project teams, their peers but also interact with clients to ensure reduced conflict that may unnecessary delay the project. Proper management of project design and construction lies with the contractor.

2.3.5 Technical Capability of Contractors

Technical capability has been identified as one of the critical factors that lead to timely completion of construction projects (Al-Jibouri & Ogink, 2009). Doloi (2009) conducted a study to investigate the factors that lead to successful delivery of public works projects. A total of 43 influencing technical attributes were identified through a systematic research approach. After performing a factor analysis, a total of seven technical factors were found to significantly influence contractors' performance: (1) soundness of business and workforce; (2) planning and control; (3) quality management; (4) past performance; (5) risk management; (6) organizational capability; and (7) commitment and dedication. Multiple linear regression models revealed that technical expertise, past success, time in business, work methods and working capital significantly impact on contractors' performance across time, cost and quality success.

There is evidence that lack of technical capability and skills of contractors hinders the progress of project performance. Public procurement system should consider the

technical capability of contractors including the capability of skills and their staff as an important determinant of procurement decision ((Smyth, 2010).

According to Masterman (2002), selecting technical competent contractors is one of the critical success factors in public works or construction industry. The physical construction industry highly depends on the technical capability and efficiency of contractors and these should be a major consideration during the tendering stage.

When working towards professional design of construction project, the client should appoint a design consultant to prepare concept designs that are technically sound ((Laryea 2011).

2.3.6 Timely Completion of Project

Timely completion refers to the fixed day in the calendar (including weekends and holidays) excluding days on which work is done and completion day specified in a contract to complete or substantially complete a job or project. Zohar and Ralph (2014) define completion time as the maximum time allowed in the contract for completion of all work contained in the entire contract document.

Problem of delays in public works project is global one. When delays occur in public works projects, they can have serious consequences. Sambasivan and Soon (2007) found the six main effects of delays on construction problem in Malaysia to be cost overruns, time overruns, arbitration, litigation, disputes and total project abandonment. All these effects of delays have the potential of adversely affecting the project ability to achieve its objective. As a result, the completion of public works projects in a timely manner is therefore almost always a critical measure of not only projects success but effective procurement.

Frim Pong (2003) identified five factors out of a list of 26 as the major causes of delays of project in Ghana: monthly payment difficulties to contractors, poor contract management, material procurement difficulties, and poor technical performance. As a result, they recommend effective and efficient procurement and project management practices as the ultimate solution to time overrun. More recently Fugar and Agyakwah –Baah (2010) also reiterated that delays in public works projects are still endemic in Ghana they investigated a tool of 32 factors causing delays including poor supervision of the works on sight, underestimation of time for completion of the project by the contractors, poor professional management among others he further recommends that clients should ensure that they select contractors with requisite competencies and skills to ensure timely completion of projects.

Musa (1999) conducted a study on factors influencing delays in water projects in Kenya funded by the Government and the study found lack of capacity of contractor to execute projects diligently contributed to delay in these projects. A related study by Karimi (1998) on public works projects under the Ministry of Water found that most of the projects experienced delays due to the fact that the clients delayed in honoring payments to contractors.

2.4 Contractor Selection and Timely Completion of projects

Contractor selection is considered as critical procurement function. Research indicates that the decisions that are made by procuring entities in the selection of contractors have a bearing on the time and quality that public and construction projects will take (Sambasivan & Soon, 2007, Sweis, 2008; Alaghbari et al., 2007; Musa, 1999). Contractor selection decisions and considerations made by procuring entities have the potential to influence the time that a procured project will take (Sambasivan & Soon,

2007). A study conducted by Sambasivan and Soon (2007) in Malaysia found that limited focus on understanding the capacity of selected public works contractors led to time delays, expensive legal cases, disputes and in some cases abandonment of these projects, which grossly undermined the ability of the projects to deliver the required public value and outputs in a timely manner. Research conducted by Sweis (2008) found that poor selection of contractors by the procuring entities led to delays or and in some cases abandonment of public works projects, with adverse effect on the on the economy.

Whereas public works projects play a catalytic role in the social and economic development of any country, procuring entities have not given serious attention to selection of contractors (Alaghbari et al., 2007), leading to time overruns and in a number of cases complete abandonment of these projects (Sambasivan & Soon, 2007). However, there is no agreement among scholars and practitioners on the overall selection methods and considerations that may reduce time overruns in public works and construction projects; and also lack of consensus on the principal causes that lead to delays in the implementation of public works (Sambasivan & Soon, 2007).

Studies conducted in Kenya have provided evidence that selected contractors and the capacity of these contractors greatly influence the time that public works projects take. For instance, Musa (1999) found that contractors who were selected to implement water projects in Kenya lacked the capacity to execute these projects in time, leading to unnecessary time and cost overruns. Karimi (1998) found that most of the public works projects implemented by the Kenya Ministry of Water experienced delays due to the limited financial capacity of the contractors, who could not execute these projects in the face of delayed payments by the Ministry. The

critical role of public works to developing economies like Kenya calls for understanding contractor selection considerations that may ensure timely and quality completion of these projects.

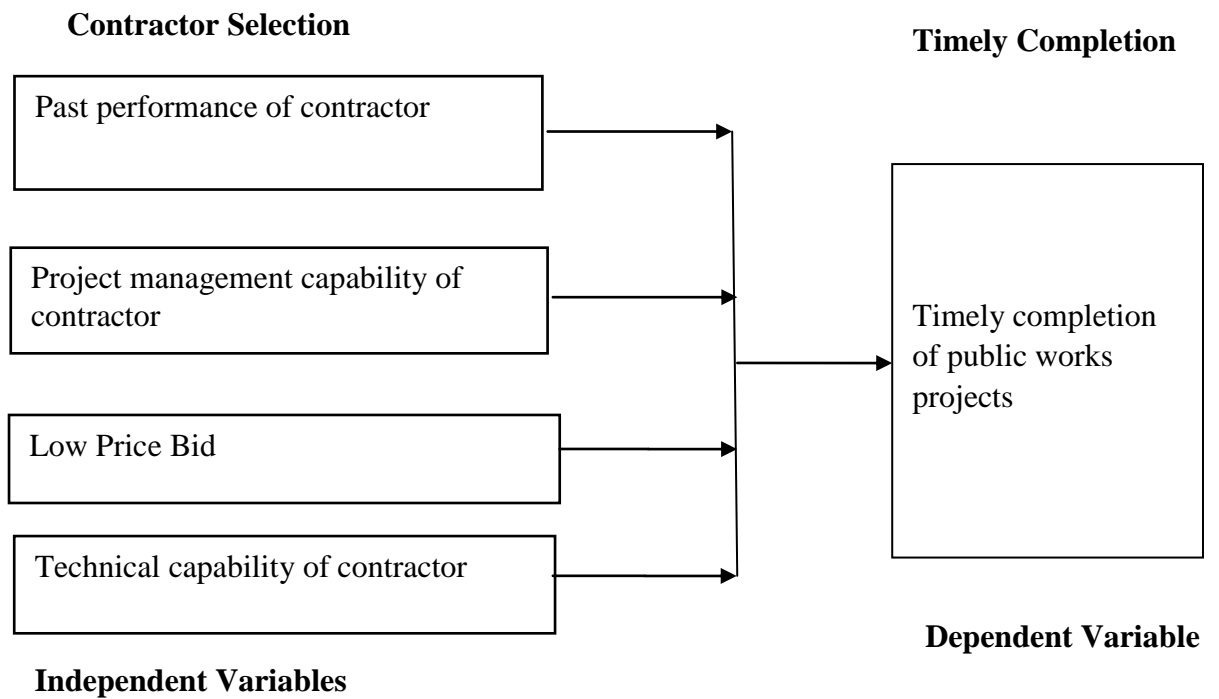
2.5 Summary of the Literature Review

This chapter presented a comprehensive review of the literature on Public Value Theory and the Principal-Agent Theory, managerial perceptions, past performance of contractors, low price bid consideration, project management capability of contractors, technical capability of contractors, timely completion of projects, and summary of the reviewed literature. The chapter started with an introduction and review of theoretical literature with specific focus on public value theory and principal agent theory. Next, a review of empirical literature on factors influencing timely completion of public works projects focused on contractors' past performance, low bid cost considerations, project management capability, technical capability of contractor and finally timely completion of the public project work.

2.5 Conceptual Framework

The study has four independent variables, namely past performance of contractors, project management capability of contractors, low price bid and technical capability of contractors. The dependent variable is timely completion of public works projects. Figure 2.5 below summarizes the study's perceived conceptual framework.

Figure 2.1: Conceptual Framework of the Perceived Influence of Contractor Selection Considerations on Timely Completion of Public Works Projects



Source: Literature Reviewed by Researcher (2016).

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the research design method, target populations, sampling techniques and sample size, data collection process and data analysis techniques.

3.2 Research Design

This study adopted a descriptive research design. Jwan (2010) explains that descriptive research is used when the researcher wants to investigate the independent and dependent variables without any artificial manipulation, and also when collecting data from a homogenous population. Descriptive design method enables the collection of data from homogenous population by use of questionnaire, interactions and observations (Mugenda & Mugenda, 2003).

Descriptive survey design was appropriate since this study collected data from a homogenous population of public procurement officers in Kisumu County, and to gauge their perception on how contractor selection considerations influence timely completion of public works projects.

3.3 Target Population

The target population of this study were all the 30 procurement officers the public procurement department in the County Government of Kisumu. Target population is a collective term used to describe the total quantity of a case of the type of which are subject of one's study population consists of objects, people or even events Sekaran (2005) defines target population as a group of individuals, objects or items from which samples are taken for measurement of its entire group, or elements that have at

least one thing in common. Mbwesa (2006) also defines target population as the entire group of people events or things of interest that the researcher wishes to investigate.

The study used census of all the 30 county procurement managers. Sekaran (2005) argues that a whole population census can be undertaken when the population under study is small and homogenous and when it is economical to do so. In this respect, all the 30 procurement officers from all the procuring entities in the county were targeted. However, out the targeted only 22 accepted to participate in the study, putting the response rate at 73%.

3.4 Data Collection

Nominal, ordinal and ratio data were collected. Collected nominal data included a listing of county procuring departmental entities that implemented public works projects in the 2014/2015 financial year. Ordinal data were collected using a five point Likert scale focusing on the perception of procurement managers on the influence of the four contractor selection considerations on the timely completion of public works projects. The Likert scale responses ranged from 'strongly disagree' to 'strongly agree'. Both the nominal and the ordinal data were analyzed using descriptive statistics. Ratio data focused on the monetary values of the awarded public works projects were also collected.

A self-administered questionnaire was developed by the researcher. Bowling (2005) advised that self-administered questionnaires can be used by more informed and educated research respondents who are conversant with the research issues. The questionnaire was used to collect information about the departments that implemented public works projects, the types of public works that the departments awarded, the approximate value of the awarded projects in Kenya shillings, ratings of the awarded

projects in order of the county's development priority (high priority, low priority, not a priority), the current status of the projects (completed, not started, started but not completed, suspended). The next section of the questionnaire rated the perceptions of the procurement managers on four contractor selection considerations (namely past performance, low bid cost, project management capability, and technical capability) on a five point Likert scale ranging from 'strongly disagree' to 'strongly agree'.

Each respondent was required to tick only one response for each question with the response with SD is the lowest point (1) and SA (5) being the highest point. The use of Likert questionnaire has a number of advantages over other types of research instruments (Sekaran, 2005). They are relatively cheaper, do not require much effort from the questioner as verbal or telephone surveys, and often have standardized answer that make it simpler to compile data (Sekaran ,2005). The five point Likert scale responses will range from: Strongly Disagree (SD)= 1; Disagree (D)=2; Don't Know (DN)=3; Agree (A)=4, and Strongly Agree (SA)=5. All the 30 procurement officers from all the procuring entities in the county were targeted.

The interviews were conducted by the researcher herself in cases where the interviewees wanted explanations about the questions. Otherwise, in most of the cases, the questionnaire was self-administered. The respondents (those interviewed) included procurement managers in charge of the various county departments responsible for implementing public works projects in the county government.

3.6 Data Analysis

Both descriptive and inferential statistics were used to analyse the data. The collected data were arranged in groups and categorised into nominal, ordinal and ratio scales of measures. The researcher then ran descriptive statistics, including frequencies and percentages, which were presented in tables. Additionally, in order to answer the

research questions, the researcher also ran inferential statistics. First of all, the researcher collated the individual Likert scale data and came up with scores for the research question variables. The researcher did this by summing up the individual Likert scale items based on the nominal values ranging from 1-5. Before running inferential statistics on the collated variables, the researcher checked for their skewness by plotting histograms for each of them and applying a distribution curves on them. This is because inferential statistics work best with normally distributed data. In order to be able to answer the research questions, the researcher ran ANOVA tests to compare the means between different groups. The ANOVA tests compared the means of the different groups and was used to deduce differences in timely delivery of services by the respondents.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1. Introduction

This chapter presents descriptive analysis of departmental distributions of procurement managers, types of public works projects awarded in 2015/2016, budget allocated for the awarded public works projects, ratings of the county's development priority of the awarded public works projects.

The chapter presents a comprehensive and analyses of the results of perceived influence of past performance on timely completion of public works projects, perceived influence of low cost bid on timely completion of public works projects, perceived influence of project management capability on timely completion of public works projects, and perceived influence of technical capability on timely completion of public works projects. These results are discussed in light of the reviewed theoretical and empirical literature.

4.2. Demographic Information

4.2.1: Departmental Distribution of Procurement Managers

The highest number of respondents came from the City Council Department (29.17%), with the lowest number of respondents from Health, ICT, Lands, Governance, and County Assembly at (4.2%), respectively. Table 4.1 summarizes the departmental distribution of the respondents.

Table 4.1: Departmental Distribution amongst the Respondents

Department	Mean	Percentage
Water, Environment and Natural Resources	0.083	8.33
Education, Youth, Culture & Social	0	0.00
Health	0.042	4.2
Roads, Transport And Public Works	0.083	8.33
Tourism And Heritage	0.083	8.33
Lands And Housing & Physical Planning	0.042	4.2
Agriculture, Livestock & Fisheries	0.083	8.33
Finance And Planning	0.083	8.33
ICT	0.042	4.2
Governance	0.042	4.2
Energy	0.042	4.2
Industrialization Enterprises Dev.	0.042	4.2
City Council	0.292	29.2
County Assembly	0.042	4.2

Source: SPSS Output (2016).

4.2.2: Type of Public Works Project Awarded In 2015/16

Construction had the highest contract award (41.7%), Rehabilitation (29.2%) and Maintenance (25.0%), with Renovation having the least award (4.2%). Table 4.2 summarises the types of public works projects awarded.

Table 4.2: Type of Public Works Project/s Awarded in 2015/16

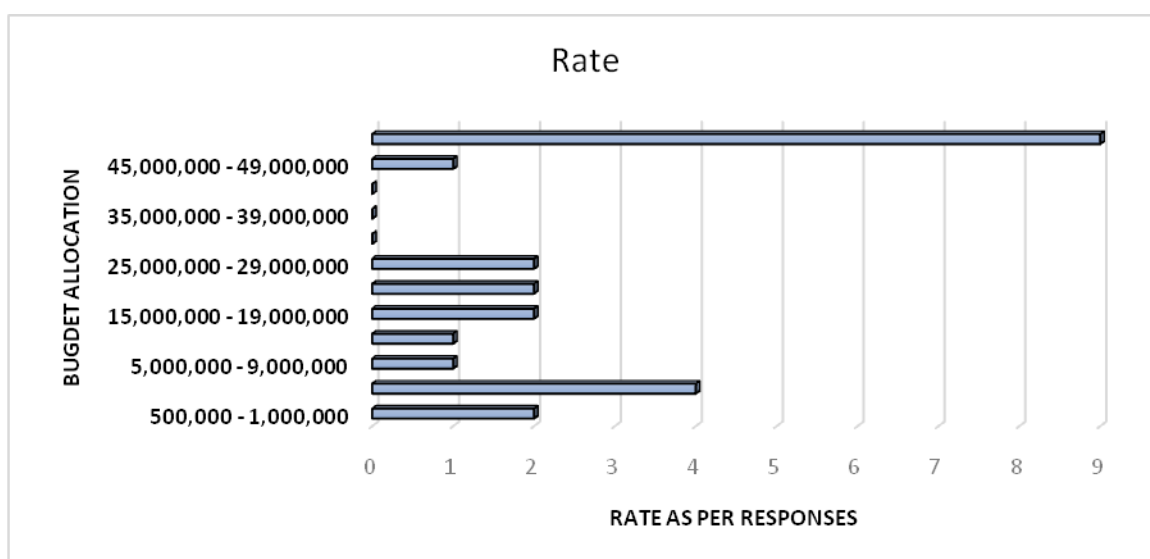
Type of public works project awarded	Mean	Percentage
Renovation	0.042	4.2
Construction	0.417	41.7
Maintenance	0.250	25.0
Rehabilitation	0.292	29.2

Source: SPSS Output (2016).

4.2.3: Budget Allocated in 2015/2016 for the Awarded Public Works Projects

The largest budget allocation was above Kshs. 49,000,000 this is mainly because the county government of Kisumu deals with major projects especially projects funded by KUP under city followed by projects between Kshs 5,000,000.00 to 9,000,000.00 these are project done in the department of Roads that deals with rehabilitation, opening and improvement and maintenance of various roads within the county for the projects the county government majorly deals with projects. Projects that rangers between Kshs 15,000,000.00 to 29,000,000.00 these are projects under department of health, water, education, energy and tourism that deals with building, maintenance of sub-county hospitals, major water connection in these hospitals, schools and community at large within the county, in education, there are building of ECD classrooms, classrooms in polytechnics, resource centers for trade department and street lighting within the county. Projects that are done with the budget allocations of Kshs 500,000 to 1,000,000.00 are majorly for maintenance of buildings.

Figure 4.1: Budget Allocation for Projects Awarded in 2015/16



Source: SPSS Output (2016).

4.2.4: Projects Rating in Order of the County’s Development Priority.

Procurement managers gave their views on the priority of the awarded projects. 62.5% of the respondents reported that the awarded development were of high priority in the County’s’ development. A total of 37.5% of the respondents however reported that the awarded projects were of medium priority in the County’s development. Table 4.3 summarises the respondents’ ratings in terms of development priority for the County.

Table 4.3: Project rating in order of the County’s Development Priority

Project Rating	Mean	Percentage
High Priority	0.625	62.5
Medium Priority	0.375	37.5
Low Priority	0	0
Not a Priority	0	0

Source: SPSS Output (2016).

4.2.5: Current Status of the Projects Awarded in 2015/16 Financial Year

The procurement managers reported that only 29.2% public works projects awarded in 2015/2016 financial year had been completed, with 66.7% of the awarded public works projects started but not completed. However, none of the projects had been suspended or abandoned. Table 4.4 summarizes the status of the awarded projects.

Table 4.4: Current Status of the Awarded Public Works Projects

Project Status	Mean	Percentage
Completed	0.292	29.2
Not started	0.042	4.2
Started but not completed	0.667	66.7
Suspended	0	0.0

Source: SPSS Output (2016).

4.3. Perceived Influence of Past Performance of Contractors on Timely Completion of Public Works Projects

The first objective of the study was to establish the extent to which procurement managers perceive past performance of contractors as having an influence on timely completion of public works implemented by the County Government of Kisumu. A combined percentage of 95.8% of the of the procurement managers perceived past performance of contractors as having an influence on the timely completion of public works projects implemented by the county government of Kisumu. Half of the respondents (50%) strongly perceived past performance of contractors as having an influence on timely completion on public works projects, with 45.8% of the respondents perceiving past performance of contractors as having an influence on timely completion of the projects. Significantly, all the interviewed procurement managers (100%) strongly believed that contractor with track record of performance should be awarded. Such contractors were also perceived by 91.6% as having the capacity to always complete awarded projects in time (agreeing 45.8% and strongly agreeing 45.8%).

The findings from this study objective seem to contradict Ling Chong's (2005) research findings that found that few public procurement entities and agencies in developing countries ever considered past performance of contractors as a basis for awarding contractors ; since the current study has found that a great number of interviewed procurement managers (95.8%) perceived and believed that past performance of contractors influences the timely completion of the projects , with all the interviewed managers (100%) believing that contractor with track record of performance should be awarded projects.

Incidentally, the findings from this study reinforce the recommendations made by Lee and Artidi (2006) that public procurement agencies should seriously consider past performance of prequalified contractors before contracts are awarded. However, the results of this objective should be interpreted with a lot caution, since the current was interested on establishing the perceptions of procurement managers on the extent to which they think that past performance of contractors influence timely completion of public works projects. Perceptions are totally from realities or the actual practice. Table 4.5 summarises the descriptive data.

Table 4.5: Procurement Managers’ Perceptions of Past Performance of Contractors Consideration on Timely Completion of Public Works Projects

Past performance of Contractor Consideration	Mean	Std Dev
I always consider the past performance of contractor before awarding contract	4.333	0.868
I always award contract to contractor with track record of performance	4.292	0.464
I always don't consider the past performance of a contractor	1.667	0.702
Contractor with track record of performance always complete awarded projects in time	4.292	0.859
Overall	3.646	0.723

Source: SPSS Output (2016).

The high mean 4.333, 4.292 and 4.292 shown above for past performance of contractor consideration, awarding contractor with track record of performance and with regards to the contractor completing awarded projects in time respectively, indicates agreement of managers that past performance is a major factor considered before awarding a project contract. While the low mean 1.667 indicates relatively strong disagreement for managers that consideration is not made for a contractor’s past performance. This also receives a relatively high variation given by the standard

deviation of 0.702 indicates a relatively significant high disagreement that past performance is not considered.

4.4. Perceived Influence of Low Cost Bid Consideration on Timely Completion of Public Works Projects

The second objective of the study was to establish the extent to which procurement managers perceive Low Cost Bid considerations as influencing the timely completion of public works projects implemented by the County Government of Kisumu County. A combined 79.2% of the Procurement Managers perceived low cost bid considerations as having influence on the timely completion of public works projects implemented by the County Government of Kisumu (29.2% strongly agreed and 50.0% agree).

The finding from this study seems to support Ochrana and Hrnčířová's (2015) study that found that contracting entities in the Czech Republic strongly prefer to use the lowest bid price criterion. The finding, however contradicts Chan, et al's (2014) study that found that procurement managers' view in general was that the reduction of construction costs is not always the best since the contractor's cost-reduction is likely to negatively affect the design of construction projects. While one would have expected all the interviewed procurement managers to support the lost cost bid consideration, to reflect the public sector's preference for doing more with less, a combined 79.2% of the Procurement Managers perceived low cost bid considerations as having influence on the timely completion of public works projects implemented by the County Government of Kisumu (29.2% strongly agreed and 50.0% agree).

It is important to interpret the results of this finding with a lot of caution. While the low bid procurement system has a long standing history in public procurement system

(Garrison 2010), Abuya (2016) has raised the red flag on project fraud where project costs are deliberately inflated by project managers to line their own pockets. Abuya (2016) found that prices are inflated in public sector projects to fund corrupt and openly fraudulent activities that are not supportive of the objectives and goals of the project. Thus, while the low cost bid has traditionally been favored in public sector projects, Abuya's study (2016) argues that project fraud increases the cost of projects and that price and bid rigging is a reality in public sector projects. However, since this present study was concerned with establishing the perception of procurement managers with regard to the low cost bid, it difficult to know why the managers are not in total support of the low cost bid consideration. Table 4.6 summarises the descriptive data.

Table 4.6. Procurement Managers' Perceptions of the influence of Low Cost Bid Consideration on Timely Completion of Public Works Projects

Low Bid Cost Consideration	Mean	Standard Dev
I always award contract to low cost bid contractor	3.875	1.076
I always award contract to contractor willing to reduce prices	2.333	1.167
I always don't consider low cost bid/contractor	2.667	1.404
Low cost bid contractor always complete awarded projects in time:	2.542	1.318
Overall	2.854	1.241

Source: SPSS Output (2016).

The relatively high mean 3.875 shown above for low cost bid of contractor consideration indicates an agreement that managers consider low cost bidding. The highest variation given by the standard deviation of 1.404 indicates that managers differ with the perception that low cost bidding is not considered. This can be seen using the Likert Scale as a strong disagreement.

4.5. Perceived Influence of Project Management Capability on Timely Completion of Public Works Projects

The third objective of the study was to establish the extent to which procurement managers perceive contractors' project management capability as influencing the timely completion of public works projects implemented by the County Government. A total of 91.7 % of the Procurement Managers perceived contractors' project management capability as having an influence on the timely completion of public works projects implemented by the County Government of Kisumu (50.0% strongly agreed and 41.7% agreed), with 83.3% perceiving projects awarded to contractors with project management capability as capable of being completed in time.

The findings from the study support Kirsch's study (2000) that found that successful project management is critical to the timely completion of construction projects. Thite (1999) also emphasized that both technical and transformational project leadership skills are critical requirements among construction /public works project managers. Table 4.7 summarises the descriptive data.

Table 4.7: Procurement Managers' Perceptions of the Influence of Project Management Capability Consideration on Timely Completion of Public Works Projects

Project Management Capability Consideration	Mean	Standard Dev
I always consider the project management capability of prequalified contractor	4.375	0.770
I always award contract to contractor with effective project management skills	4.333	0.761
I always don't consider the project management capability of a contractor	2.125	1.191
Contractor with effective project management skills complete awarded project/s in time	4.167	1.090
Overall	3.75	0.953

Source: SPSS Output (2016).

The high mean 4.375, 4.333 and 4.167 shown above for project management capability of contractor consideration, awarding contractor with effective project management skills and with regards to the contractor completing awarded projects in time respectively, indicates agreement of managers that project management capability is a major factor considered before awarding a project contract. The low mean 2.125 indicates disagreement for managers that consideration is not made for a contractor's project management capability. Non-consideration of project management capabilities also receives a relatively high variation given by the standard deviation of 1.191 indicating a significantly high disagreement amongst managers that it is not considered.

4.6. Perceived Influence of Technical Capability on Timely Completion of Public Works Projects

The fourth and last objective of the study was to establish the extent to which Procurement Managers perceive contractors' technical capability as influencing the timely completion of Public Works Project implemented by the County Government of Kisumu. All the interviewed Procurement Managers (100%) contractors' technical capability as having an influence on the timely completion of Public Works Projects implemented by the County Government (54.2% strongly agreed and 45.8% agreed). A significant percentage of the Procurement managers (95.8%) also said they would prefer hiring contractors with effective technical skills. The finding of this study supports Doloi's (2009) study that found that technical expertise significantly impact on contractors' performance across time, cost and quality success.

The finding from this study also support Masterman's (2002) thesis that selecting technical competent contractors is one of the critical success factors in public works or construction industry. It also lends credence to finding Laryea's (2011) finding that public works projects highly depends on the technical capability and efficiency of contractors and these should be a major consideration during the tendering stage. Table 4.8 summarizes the descriptive data.

Table 4.8: Procurement Managers’ Perceptions of the Influence of Contractors’ Technical Capability Consideration on Timely Completion of Public Works Projects

Technical Capability Consideration	Mean	Standard Dev
I always consider the technical capability of prequalified contractor before awarding contract	4.542	0.509
I always award contract to contractor with effective technical skills	4.375	0.711
I always don't consider the technical capability of a contractor	1.958	1.367
Contractor with effective technical skills complete awarded project/s in time	4.250	0.989
Overall	3.781	0.894

Source: SPSS Output (2016).

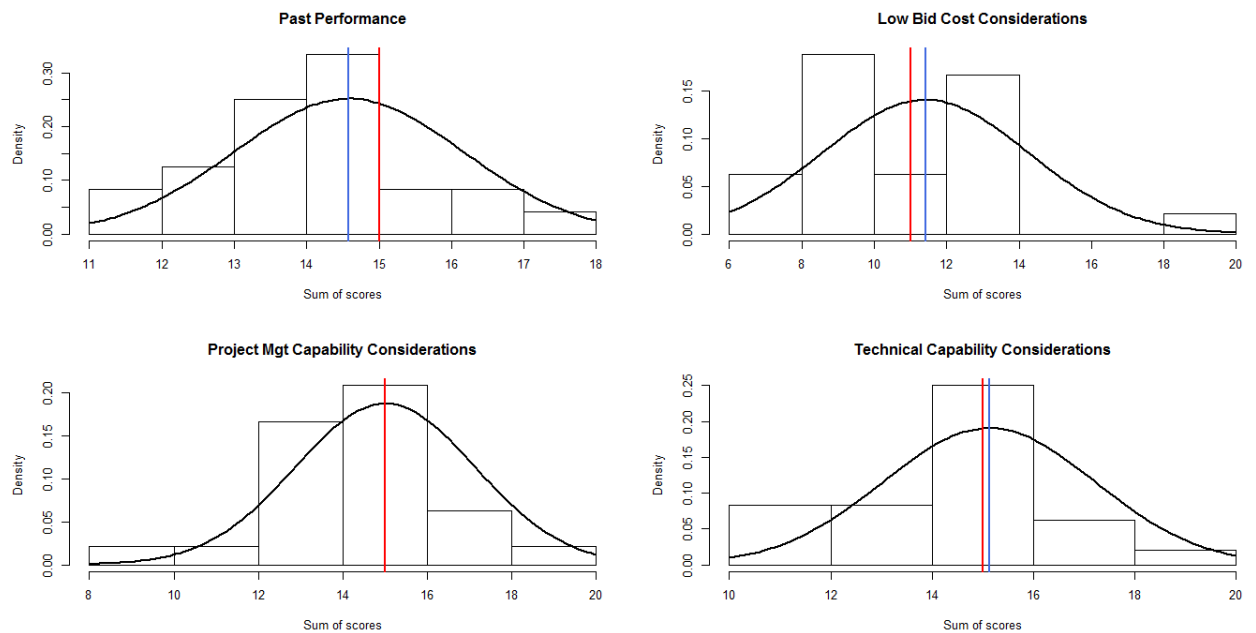
The high mean 4.542, 4.375 and 4.250 shown above for technical capability of contractor consideration, awarding contractor with effective technical skills and with regards to the contractor completing awarded projects in time respectively, indicates agreement of managers that technical capability is also a major factor considered before awarding a project contract. The low mean 2.125 indicates disagreement for managers that consideration is not made for a contractor’s technical capability. Non-consideration of technical capabilities also received a relatively high variation given by the highest standard deviation of 1.367 indicating a significantly high disagreement amongst managers that it is not considered.

4.7. Analysis of Variance (ANOVA)

Before running analysis of variance (ANOVA), the researcher checked for the skewness of the collated variables from the Likert scale data. In order to come up with the sum of scores for the past performance of contractors' variable, the researcher summed up the individual responses of its Likert scale items (questions 2.1, 2.2, 2.3, 2.4) while in order to come up with the sum of scores for the low bid cost consideration variable (q3_0), the researcher summed up its individual responses on the Likert scale (questions 3.1, 3.2, 3.3, 3.4).

For the project management capability considerations (q4_0), the researcher summed up its individual responses on the Likert scale (questions 4.1, 4.2, 4.3, 4.4), while for the technical capability considerations (q5_0), the researcher summed up its individual responses on the Likert scale (questions 5.1, 5.2, 5.3, 5.4). The Figure below shows the distribution of the data for the four collated variables of interest in the study. All the variables showed a fairly normal distribution, although the low bid cost considerations was slightly right skewed while the project management considerations variable was slightly left skewed.

Figure 4.2: The Distribution of the Data for the Four Collated Variables Of Interest in the Study



Source: SPSS Output (2016).

4.7.1 Past Performance versus Completion of Public Works Projects

One of the objectives of the study was to establish the extent to which past performance of contractors is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of Kisumu. The researcher then ran an ANOVA test on the sum of scores for the past performance of contractor's variable (q2_0) versus the variables: type of public works projects department was awarded in 2015/2016 (q1_4); the value of the projects department was awarded in 2015/2016 (q1_5); how the respondent rated projects their department was awarded in 2015/2016 (q1_6) and; current status of projects within their department awarded in 2015/2016 (q1_7).

The ANOVA test was chosen as the appropriate statistical technique because it is used to compare the means of more than two samples in order to establish if there are differences based on the particular samples' sub-groups.

Figure 4.3: Analysis of Variance Past Performance Versus Completion of Public Works Projects

Analysis of Variance						
Response: q2_0						
	Df	Sum Sq	Mean Sq	F	value	Pr(>F)
q1_4	1	4.93	4.927	2.018	0.173	
q1_5	1	0.04	0.045	0.018	0.894	
q1_6	1	5.44	5.441	2.228	0.153	
q1_7	2	3.46	1.732	0.709	0.505	
Residuals	18	43.96	2.442			

Source: SPSS Output (2016).

The two-way ANOVA output indicates no significant difference in means for the past performance of contractors' variable (q2_0) relating to type of public works projects awarded (q1_4, p-value 0.173); the value of the projects department was awarded in 2015/2016 (q1_5, p-value 0.894); how the respondent rated projects their department was awarded in 2015/2016 (q1_6, p-value 0.153) nor; current status of projects within their department awarded in 2015/2016 (q1_7, p-value 0.505).

Table 4.9: Summary of Mean Scores and Standard Deviation for the Past Performance Variable

<i>Group</i>	<i>Sub-group</i>	<i>Mean</i>	<i>SD</i>
Type of projects	Renovation	11.0	NaN
	Construction	14.6	1.07
	Maintenance	14.7	1.37
	Rehabilitation	15.0	2.00
Value of projects	500,000-1,000,000	15.0	0.00
	1,000,000- 4,000,000	13.2	1.708
	5,000,000, 9,000,000	15.0	NaN
	10,000,000- 14,000,000	17.0	1.414
	15,000,000- 19,000,000	13.5	0.000
	20,000,000- 24,000,000	15.0	3.536
	25,000,000- 29,000,000	NaN	NaN
	30,000,000- 34,000,000	NaN	NaN
	35,000,000- 39,000,000	NaN	NaN
	40,000,000-44,000,000	NaN	NaN
	45,000,000- 49,000,000	16.0	NaN
	Above 50,000,000	16.5	2.128
	Project rating	High priority	14.1
Medium priority		15.3	1.41
Low priority		NaN	NaN
Not a priority		NaN	NaN
Project status	Completed	15.3	1.25
	Not started	13.0	NaN
	Started but not completed	14.4	1.67
	Suspended	NaN	NaN

Source: SPSS Output (2016).

The table above shows the summary of mean scores and standard deviation for the past performance variable.

4.7.2 Low bid Cost Consideration Versus Completion of Public Works Projects

Another objective of the study was to examine the extent to which low price bid is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of

Kisumu; The researcher similarly ran an ANOVA test on the sum of scores for low bid cost consideration variable (q3_0) and compared it to the variables: (1) type of public works projects department was awarded in 2015/2016 (q1_4); (2) the value of the projects department was awarded in 2015/2016 (q1_5); (3) how the respondent rated projects their department was awarded in 2015/2016 (q1_6) and; (4) current status of projects within their department awarded in 2015/2016 (q1_7).

Figure 4.4: Analysis of Low Bid Cost Consideration Versus Completion of Public Works Projects

Analysis of Variance						
Response: q3_0						
	Df	Sum Sq	Mean Sq	F	value	Pr(>F)
q1_4	1	12.69	12.69	2.024	0.1719	
q1_5	1	51.79	51.79	8.258	0.0101	*
q1_6	1	0.89	0.89	0.142	0.7105	
q1_7	2	7.56	3.78	0.603	0.5581	
Residuals	18	112.90	6.27			

Source: SPSS Output (2016).

As shown above, the two-way ANOVA output indicates no significant difference in means for the low bid cost consideration variable (q3_0) relating to type of public works projects awarded (q1_4, p-value 0.1719); how the respondent rated projects their department was awarded in 2015/2016 (q1_6, p-value 0.7105) nor; current status of projects within their department awarded in 2015/2016 (q1_7, p-value 0.5581).

However, the two-way ANOVA output indicates a significant difference (5% significance level) of average scores based on the value of the projects that a department was awarded in 2015/2016 (q1_5, p-value 0.0101), suggesting that the value of a project influences low bid considerations. As shown in the table below, low bid considerations seemed to be made for low value projects as compared to higher value projects, where lesser considerations were given for the bid amount.

Table 4.10: Summary of Mean Scores and Standard Deviations for the Low Bid Cost Consideration Variable

Group	Sub-group	Mean	SD
Type of projects	Renovation	14.0	NaN
	Construction	11.6	3.37
	Maintenance	12.2	2.23
	Rehabilitation	10.1	2.48
Value of projects	500,000-1,000,000	11.50	2.121
	1,000,000- 4,000,000	12.75	0.957
	5,000,000, 9,000,000	19.00	NaN
	10,000,000- 14,000,000	14.00	NaN
	15,000,000- 19,000,000	11.00	1.414
	20,000,000- 24,000,000	14.00	0.000
	25,000,000- 29,000,000	11.50	3.536
	30,000,000- 34,000,000	NaN	NaN
	35,000,000- 39,000,000	NaN	NaN
	40,000,000-44,000,000	NaN	NaN
	45,000,000- 49,000,000	8.00	NaN
	Above 50,000,000	9.56	2.128
Project rating	High priority	11.5	2.88
	Medium priority	11.3	2.96
	Low priority	NaN	NaN
	Not a priority	NaN	NaN
Project status	Completed	12.7	3.64
	Not started	12.0	NaN
	Started but not completed	10.8	2.43
	Suspended	NaN	NaN

Source: SPSS Output (2016).

The table above shows the summary of mean scores and standard deviation for the low bid cost considerations variable.

4.7.3 Project Management Capability Considerations Versus Completion of Public Works Projects

A third objective of the study was to assess the extent to which project management capability of contractors is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of Kisumu. As previously, the researcher ran an ANOVA test on the sum

of scores for project management capability considerations (q4_0) and compared it to the variables: (1) type of public works projects department was awarded in 2015/2016 (q1_4); (2) the value of the projects department was awarded in 2015/2016 (q1_5); (3) how the respondent rated projects their department was awarded in 2015/2016 (q1_6) and; (4) current status of projects within their department awarded in 2015/2016 (q1_7).

Figure 4.5: Analysis of Variance of Project Management Capability Considerations Versus Completion of Public Works Projects

Analysis of Variance						
Response: q4_0						
	Df	Sum Sq	Mean Sq	F	value	Pr(>F)
q1_4	1	0.80	0.802	0.163	0.691	
q1_5	1	1.39	1.386	0.283	0.602	
q1_6	1	8.16	8.162	1.664	0.213	
q1_7	2	5.37	2.684	0.547	0.588	
Residuals	18	88.28	4.905			

Source: SPSS Output (2016).

As shown above, the two-way ANOVA output indicates no significant difference in means for the project management capability considerations (q4_0) relating to type of public works projects awarded (q1_4, p-value 0.691); the value of the projects department was awarded in 2015/2016 (q1_5, p-value 0.602); how the respondent rated projects their department was awarded in 2015/2016 (q1_6, p-value 0.213) nor; current status of projects within their department awarded in 2015/2016 (q1_7, p-value 0.588).

Table 4.11: Summary of Mean Scores and Standard Deviation for The Project Management Capabilities Variable

<i>Group</i>	<i>Sub-group</i>	<i>Mean</i>	<i>SD</i>
Type of projects	Renovation	14.0	NaN
	Construction	15.2	2.20
	Maintenance	15.5	1.38
	Rehabilitation	14.4	2.76
Value of projects	500,000-1,000,000	15.0	1.414
	1,000,000- 4,000,000	13.8	0.5000
	5,000,000, 9,000,000	20.0	NaN
	10,000,000- 14,000,000	17.0	NaN
	15,000,000- 19,000,000	15.5	0.707
	20,000,000- 24,000,000	15.5	2.121
	25,000,000- 29,000,000	15.5	0.707
	30,000,000- 34,000,000	NaN	NaN
	35,000,000- 39,000,000	NaN	NaN
	40,000,000-44,000,000	NaN	NaN
	45,000,000- 49,000,000	15.0	NaN
	Above 50,000,000	14.4	2.651
	Project rating	High priority	14.6
Medium priority		15.7	1.32
Low priority		NaN	NaN
Not a priority		NaN	NaN
Project status	Completed	15.7	2.50
	Not started	13.0	NaN
	Started but not completed	14.8	1.97
	Suspended	NaN	NaN

Source: SPSS Output (2016).

The table above shows the summary of mean scores and standard deviation for the project management capabilities variable.

4.7.4 Technical Capability Considerations Versus Completion of Public Works Projects

The final objective of this study was to assess the extent to which technical capability of contractors is perceived by county government procurement managers to influence timely completion of public works projects implemented by the County Government of Kisumu. The researcher ran an ANOVA test on the sum of scores for technical capability considerations (q5_0) and compared it to the variables: (1) type of public works projects department was awarded in 2015/2016 (q1_4); (2) the value of the projects department was awarded in 2015/2016 (q1_5); (3) how the respondent rated projects their department was awarded in 2015/2016 (q1_6) and; (4) current status of projects within their department awarded in 2015/2016 (q1_7).

Figure 4.6: Analysis of Variance Technical Capability Considerations Versus Completion of Public Works Projects

Analysis of variance						
Response: q5_0						
	Df	Sum Sq	Mean Sq	F	value	Pr(>F)
q1_4	1	0.02	0.020	0.004	0.950	
q1_5	1	0.72	0.717	0.149	0.704	
q1_6	1	0.34	0.342	0.071	0.793	
q1_7	2	13.06	6.528	1.359	0.282	
Residuals	18	86.49	4.805			

Source: SPSS Output (2016).

As shown above, the two-way ANOVA output indicates no significant difference in means for the technical capability considerations (q5_0) relating to type of public works projects awarded (q1_4, p-value 0.950); the value of the projects department was awarded in 2015/2016 (q1_5, p-value 0.704); how the respondent rated projects their department was awarded in 2015/2016 (q1_6, p-value 0.793) nor; current status of projects within their department awarded in 2015/2016 (q1_7, p-value 0.282).

Table 4.12: Summary of Mean Scores and Standard Deviation for the Technical Capabilities Variable

Group	Sub-group	Mean	SD
Type of projects	Renovation	14.0	NaN
	Construction	15.2	2.49
	Maintenance	15.3	1.75
	Rehabilitation	15.0	2.16
Value of projects	500,000-1,000,000	17.0	1.414
	1,000,000- 4,000,000	13.0	1.155
	5,000,000, 9,000,000	20.0	NaN
	10,000,000- 14,000,000	17.0	NaN
	15,000,000- 19,000,000	15.0	0.000
	20,000,000- 24,000,000	15.0	1.414
	25,000,000- 29,000,000	15.5	0.707
	30,000,000- 34,000,000	NaN	NaN
	35,000,000- 39,000,000	NaN	NaN
	40,000,000-44,000,000	NaN	NaN
	45,000,000- 49,000,000	16.0	NaN
	Above 50,000,000	14.8	2.167
	Project rating	High priority	15.0
Medium priority		15.3	0.866
Low priority		NaN	NaN
Not a priority		NaN	NaN
Project status	Completed	15.7	2.50
	Not started	12.0	NaN
	Started but not completed	15.1	1.84
	Suspended	NaN	NaN

Source: SPSS Output (2016).

The table above shows the summary of mean scores and standard deviation for the technical capabilities considerations variable.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter presents a summary of the findings, and also gives the conclusions and recommendations.

5.2. Summary of the Findings

The purpose of the study was to establish the perceived influence of contractor selection considerations on timely completion of public works projects implemented by the County Government of Kisumu. Past performance of contractors was not perceived as having an influence on the timely completion of public works projects implemented by the county government of Kisumu. The findings from this study thus remains consistent with research findings in other countries that have found that few public procurement entities and agencies in developing countries ever considered past performance of contractors as a basis for awarding contractors.

The low bid consideration in public procurement entities was supported by the findings of this study which reinforces the perception that public contracting entities in Kisumu County government may strongly prefer to use the lowest bid price criterion. The researcher found the finding of this study consistent with findings of other studies as contractors in Kisumu County did not perceive low bid cost considerations as to influence completion of projects. Findings of studies by other researchers that have found procurement managers' view that the reduction of construction costs may not always be the best since the contractor's cost-reduction is likely to negatively affect the design of public works projects. However, this study

also found that the value of the project to be contracted had some influence on whether the contractors would make low bid considerations.

The perceived influence of contractors' project management capability was found not to have any significant influence on the timely completion of public works projects, meaning contractors in Kisumu County did not perceive any project management capabilities to have any influence on timely delivery. This finding is inconsistent with findings from studies in other developed and developing countries that have found that successful project management is critical to the timely completion of construction projects.

The researcher also found that the technical expertise of contractors implementing public works projects did not have any significant influence on the timely completion of those projects. This is despite other findings on the perceived influence of technical expertise finding strong support in studies conducted in other countries where technical expertise was found to significantly impact on contractors' performance across time, cost and quality success. Technical competence of contractors was not perceived by the procurement managers in Kisumu County as significantly contributing to the timely implementation of public works projects.

5.3. Conclusions

Perceptions of procurement managers may exert a lot of influence on contractor selection considerations in public procuring entities. The findings from this study should be interpreted cautiously since perceptions of the procurement managers may or may not necessarily translate into departmental contracting decisions. The

procurement managers placed technical capability, past performance and project management capability above the low cost bid consideration.

These findings are important since highly prioritized selection considerations should be taken into considerations when a county government makes decision to award or not to award. Since public works projects are expected to play a critical role in the socio-economic development of the Counties, serious considerations should be given to these from these selection considerations since they have the capacity to provide value for the public. Notwithstanding these findings, it is important that care should be exercised when interpreting them and to avoid generalizing these considerations to the rest of Kenya's County Governments since these perceptions may not necessarily reflect the perceptions of procurement managers in the Counties' procuring entities.

5.4. Recommendations

There are a number of recommendations that emanate from this study. First and foremost, since the study findings may not be generalized to the rest of the Counties in Kenya, it is important and necessary to replicate this study in a number of countries to find out if these findings are comparable across Kenya's Counties. It is strongly recommended that a study should be conducted that should include more counties with a larger sample size. Increasing the number of counties and procurement managers may lead to study findings that can be generalized to the rest of the county governments in Kenya.

Secondly, since the study focused on the perceptions of the procurement managers in Kisumu County, and in view of the fact that perceptions may not necessarily translate into action, it is strongly recommended that a study should be designed and conducted

evaluate the effects of the contractor selection considerations on the timely implementation of public works projects.

The study findings have placed low bid considerations as the least perceived contractor selection consideration, even in the face of abundant research evidence that public organizations almost always consider the low cost bid. In view of this contradictory finding, it is important to find motivation for placing low bid as the last consideration. This is important since there is emerging concern that county governments have devolved corruption and that this finding may be pointing to the emergence of project fraud in some counties, if low bid consideration is not given the value it has traditionally enjoyed in public sector procurement research .

5.4. Limitations

There are few limitations of this study. First and of all the study only covered projects that were done by the CGK in the financial year 2015-2016 and did not cover projects that were done in the previous this implies that it will not have solid base for the analysis of the project. Secondly the coverage of the study was Kenya with specific projects in CGK excluding other forty-six counties finally, not all procurement officers were will to fill in the questionnaires and other departmental procurement officer took time to fill and other did not fill the questionnaires completely this led to time constrain.

5.5. Suggestions for Further Study.

It will be important to conduct a study to find out the how perceived influence of contactors selections considerations on timely completion of public works in various

counties. A comparative study will be critical in order to establish whether there are similarities or differences in these considerations. One county result can be compared with another county.

REFERENCES

- Abuya. I. O. (2016). Project Fraud: Conceptualization, Determinants and Schemes. *PM ~ World Journal*, Vol. V. Issue VI June 2016
- Applegate L.M., Montalegre R., Nelson, H.G & Knoop C., (1996) B.A.E Automated System (A): Denver International Baggage Handling System. *Harvard Business School Case #9 396-311*
- Bartlett, F.C. (1932). *Remembering: A study in experimental and Social Psychology*, Cambridge University Press. Cambridge.
- Beazley, R., Vaidya, K. (2015) 'Social Protection through Work. Supporting the Rural Working Poor in Lower Income Countries', Oxford Policy Management, Oxford.
- Bedford T., (2009). Analysis of the Low Bid Award System in the Public Sector Construction Procurement. Graduate department of civil engineering university of Toronto.
- Berelson, B. and Steiner, G.A. (1964) *Human Behaviour: An Inventory of Scientific Findings*, Harcourt, Brace & World, New York.
- Bowling, A. (2005) Mode of Questionnaire administration can have serious effect on data quality. *Journal of public health*, 27(3) 281 291
- Chan, J.H.L., Chan, D. W.M., Chan, A. P.C. & Lam, P.T.I. (2012). Risk mitigation strategies for guaranteed maximum price and target cost contracts in construction: A factor analysis approach. *Journal of Facilities Management*, 10(1), 6-25.
- Constable S., E., Pasmore (2008) *Public Value: The Next Step in Public Service Forum*. London: Work Foundation.
- Doloi, H. (2009). Analysis of pre-qualification criteria in contractor selection and their impacts on project success. *Construction Management & Economics*, 27(12), 1245- 1263. doi:10.1080/01446190903394541.
- Eisenhardt, K.M. (1988), "Agency- and institutional-theory explanations: the case of retail sales compensation", *The Academy of Management Journal*, Vol. 31 No.3, pp.488 511.

- Eisenhardt, K.M. (1989), "Agency theory: an assessment and review", *The Academy of Management Review*, Vol. 14 No.1, pp.57-74.
- Frimpong, Y., Olowoye, J., & Crawford, L. (2003). Causes of Delay and Cost Overruns in Construction of Ground Water Projects in Developing Countries: Ghana as a case study. *International Journal of Management*, 21(1), 321-326.
- Gajurel, A., (2014) Performance –Based Contracts for Road Project: comparative analysis of different types. Springer India
- Garrison T. (2010). It's time to a bond the low bid system posted by Ted at CDT
- Halldórsson, Á., Skjott-Larsen, T. (2006), "Dynamics of relationship governance in TPL arrangements – a dyadic perspective", *International Journal of Physical Distribution & Logistics Management*, Vol. 36 No.7, pp.490-506.
- Kagiri D.N, (2005), Time and Cost Overruns in Power Projects in Kenya: A Case Study of KENGEN, unpublished report, University of Nairobi
- Karimi, R.B., "Factors which are Critical in Project Cost Overruns: A Case Study of Ministry of Water Resources Projects", Unpublished MBA Thesis, University of Nairobi, 1998.
- Kimani S.M; (2004), An Investigation into Role of Planning in Managing Delays in Construction Projects, unpublished MA Thesis, University of Nairobi
- Kirsch, L.J., (2000). Software Project Management: An Integrated Perspective for an Emerging Paradigm. In R.W Zmood (6th Ed) Framing the domain of the management: *projecting the future through the past* 285-304
- Kumaraswamy, M.M. & Chan, D.W.M. (1999). Factors Facilitating Faster Construction. *Journal of Construction Procurement*, 5(2), 88-98.
- Laryea, S & Hughes, W (2011). Risk and Price in the Bidding Process of Contractors. *Journal of Construction Engineering Management* 10, 248-258
- Lee DMS, Truth, E.M & Farwell D (1995). Critical skills and Knowledge Requirement of I/S Professionals: A joint Academy /Industry investigation. *MIS Quartely* 19(3) 313-340

- Lee., D.E. and Artidi D., (2006) Total Quality Performance of Design in Building Firms Using Quality Functions Deployment. *Journal of construction engineering and management* 12(1), 49-57
- Ling., F.Y.Y., and Chong., C.L.K., (2005) Design Build Contractors Services Quality in Public Project in Singapore. *Journal of Building and Environment* 40, 815-823
- Manuel., K.M. (2015) Evaluating the Past Performance of Federal Contractors –Legal Requirements and Issue Congressional Research Services.
- Masterman, J.W.E (2002). An Introduction to Building Procurement Systems. 2nd Edition. Spon Press, London
- Mbatha C.M, (1986), Building Contract Performance: A Case Study of Government Projects in Kenya, MA Thesis, unpublished, University of Nairobi
- Merna, A., Smith, N.J., (1990). Bid Evaluation for UK Public Sector Construction Contracts, Proc Inst CivEngrs, Pt 1, Feb, 91-105
- Moore, M.J., (1985), Selecting A Contractor for Fast-Track Projects, Pt II, Quantitative Evaluation Method, Plant Engineering, 39(18), 54-6.
- Mosissa L., (2006). Alternative Project Delivery Method for Public Construction Cases in Oromia Region
- Mugenda , O. M., &Mugenda, A.G., (2003). Research Methods: Quantitative Approaches. Nairobi: Acts Press.
- Musa, G. H., “Determination of Factors Influencing Projects Delays in Water Projects in Kenya: The Case of Government Funded Projects”, Unpublished MBA Thesis University Of Nairobi, 1999.
- Oceanering Intl. Inc. (2001) Past Performance versus Experience.
., C (1999) The provision of incentive in firm. *Journals of economic literature* 37 (7) 63
- Sambasivan, M., & Soon, Y., (2007). Causes and Effects of Delays in Malaysian Industry. *International Journal of Project Management*, 25,517-526
- Sekaran, U., (2005). Research Methods for Business, a Skill Building Approach 4th.ed Strategic plan (2015-2020) department of roads transport and public works.

- Swanson, R.A., (2013). *Theory building in applied disciplines*. San Francisco. CA Berret Koehler Publishers.
- Sweis, G., Sweis, R., Abu-Hammad, A., & Shboul, A., (2008). Delays in construction projects: The case of Jordan. *International Journal of Project Management*, 26,665-674.
- Thite, M (1999). Identifying Key Characteristics of Technical Project Leadership. *Leadership and Organizational Development Journal*, Vol, 20,pp253-61.
- Wang, Y. (2006) cognitive informative –towards the future generation computer that think and feel (Keynote Speech). In *Proceedings of the 5th international conference on Cognitive Informatics pp3-7 IEEE CS Press*.
- Zohar, J.M., & Ralph D.E., (1995) *Determination of Contract Time for Highway Construction Project*. Washington DC National: Academy Press
- Zsidisin, G, A (2003). Managerial perceptions of supply risk. *Journal of Supply Chain Management*; 39, 1; ProQuest Central pg. 14

APPENDICES

Appendix I: Letter of Transmittal

Dear Respondent,

My name is Silvia Auma Onyango, a Master of Business Management (Procurement and Supply Chain Management) student at the University of Nairobi, School of Business, and Kisumu Campus. I am conducting a research focusing perceived influence of contractor selection consideration on timely completion of public works project Kisumu County Government. In this research, I intend to interview all the 12 procurement officers in the twelve county government departments, 7 procurement officers in city of Kisumu and 2 procurements officers county assembly total of 21 procurement officer and 14 appointed chairman of technical evaluation committee from the 14 procuring units in county government of Kisumu. I will seek your views on four issues, namely: past performance of contractors, project management capability of contractors, technical capability of contractors, and low cost bid, as considerations for the awarded contracts. I will also seek information on how, in your view, the four contractor selection considerations have influenced the timely completion of the awarded public works projects in the county.

There is no direct benefit that you will gain in participating in this study, and your participation is purely voluntary. The interview should take not more than 20 minutes to complete, and you are free to withdraw from this study, at any point without any penalty. I wish to assure you that the information that you will share with me will be confidential, and is purely for academic purposes only. If you are interested in getting feedback on the results of this study, I will be more than willing to share with you if you participate or not.

Thank you very much for your time.

Yours sincerely,

Silvia Auma Onyango (Mrs.)

MBA (Procurement and Supply Chain Management) Student

Kisumu Campus

University of Nairobi

Mobile:0723-394820

Appendix II: Survey Questionnaire for County Government Procurement Managers

Influence of Contractor Selection Considerations on Timely Completion of Public Works Projects

	Questions	Responses	Instructions
1.0.Introductions			
1.1.Date of Interview			DD/MM/YY
1.2. Interviewer ID			
1.3. Department	Which is your Department?	Water, Env. Natural Resources	Tick the most appropriate
		Education, Youth , Culture & Social	
		Health,	
		Roads, Transport And Public Works	
		Tourism And Heritage	
		Lands And Housing & Physical Planning	
		Agriculture, Livestock & Fisheries	
		Finance And Planning	
		ICT	
		Governance	
		Energy	
		Industrialization Entreprises Dev.	

		County Public Service Board		
		City Of Kisumu		
		County Assembly		
1.4.	What type of public works project/s did your department award in 2015/2016?	Renovation		Tick as appropriate
		Construction		
		Maintenance		
		Rehabilitation		
1.5	Approximately how much was the value of the project/s your department awarded in 2015/2016?	500,000-1,000,000		Tick as appropriate
		1,000,000- 4,000,000		
		5,000,000, 9,000,000		
		10,000,000- 14,000,000		
		15,000,000- 19,000,000		
		20,000,000- 24,000,000		
		25,000,000- 29,000,000		
		30,000,000- 34,000,000		
		35,000,000- 39,000,000		
		40,000,000-44,000,000		
		45,000,000- 49,000,000		
		Above 50,000,000		
1.6.	How do you rate the project/s your department awarded in 2015/2016 in order of the County's development priority?	High Priority		Tick as appropriate
		Medium Priority		
		Low Priority		
		Not a Priority		
1.6.	What is the current status of the project/s	Completed		Tick as

	your department awarded in 2015/2016?	Not started		appropriate			
		Started but not completed					
		Suspended					
	To what extent do you agree with the following statements? Please indicate your response using the following 5- point scale where: 1= Strongly Disagree (SD) 2=Disagree (D) 3= Don't Know (DK) 4= Agree (A) 5= Strongly Agree (SA)	SD	D	DK	A	SA	
2.0	Past Performance of Contractors Consideration	Tick as appropriate					
2.1.	I always consider the past performance of contractor before awarding contract.	SD	D	DK	A	SA	
		1	2	3	4	5	
2.2.	I always award contract to contractor with track record of performance	SD	D	DK	A	SA	
		1	2	3	4	5	
2.3	I always don't consider the past performance of a contractor	SD	D	DK	A	SA	
		1	2	3	4	5	
3.4	Contractor with track of record of performance always	SD	D	DK	A	SA	

	complete awarded project/s in time	1	2	3	4	5		
3.0.	Low Bid Cost Consideration	Tick as appropriate						
3.1	I always award contract to low cost bid/ contractor	SD	D	DK	A	SA		
		1	2	3	4	5		
3.2	I always award contract to contractor willing to reduce prices	SD	D	DK	A	SA		
		1	2	3	4	5		
3.3	I always don't consider low cost bid/contractor	SD	D	DK	A	SA		
		1	2	3	4	5		
3.4	Low cost bid contractor always complete awarded projects in time	SD	D	DK	A	SA		
		1	2	3	4	5		
4.0.	Project Management Capability Consideration	Tick as appropriate						
4.1	I always consider the project management capability of prequalified contractor before awarding contract	SD	D	DK	A	SA		
		1	2	3	4	5		
4.2	I always award contract to a contractor with effective project management skills	SD	D	DK	A	SA		
		1	2	3	4	5		
4.3	I always don't consider the project	SD	D	DK	A	SA		

	management capability of a contractor	1	2	3	4	5		
4.4	Contractor with effective project management skills complete awarded project/s in time	SD	D	DK	A	SA		
		1	2	3	4	5		
5.0.	Technical Capability Consideration	Tick as appropriate						
5.1	I always consider the technical capability of prequalified contractor before awarding contracts	SD	D	DK	A	SA		
		1	2	3	4	5		
5.2	I always award contracts to a contractor with effective technical skills	SD	D	DK	A	SA		
		1	2	3	4	5		
5.3	I always don't consider the technical capability of a contractor	SD	D	DK	A	SA		
		1	2	3	4	5		
5.4	Contractor with effective technical skills complete awarded project/s in time	SD	D	DK	A	SA		
		1	2	3	4	5		

Thank You Very Much for Your Valued Feedback