DETERMINANTS OF IMPLEMENTATION OF GOVERNMENT FUNDED CONSTRUCTION PROJECTS IN LAMU COUNTY, KENYA

BY

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2015
DECLARATION

This research project report is my original work and has not been submitted for any award in any University.

Signature ___________________________ Date ________________________

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L50/66344/2013

This Research project report has been submitted for examination with my approval as the University of Nairobi supervisor:

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DEDICATION

I dedicate this work to my daughters; Sandy, Kim, and their grandmother Jane Gesare.
ACKNOWLEDGEMENT

I would like to appreciate the University of Nairobi for offering me a chance to study this program and enabling us to attend lectures conveniently not forgetting the committed lecturers who ensured course work was completed on time and relevant information and knowledge was delivered to us. My gratitude goes to the course convener, Mr. Johnbosco Kisimbi for encouragement and professional guidance. Dr Moses Otieno; your unrelenting support and guidance will forever be appreciated. Thank you. The University of Nairobi Library staff members, I am grateful to you. I will not forget the security staff for your willingness to help in all aspects to make me comfortable. Thank you.
ABSTRACT

The building and construction industry in Kenya is characterized by delays and sometimes abandonment in the public sector. This phenomenon leads to economic losses and poor delivery of services. This is in spite of the fact that the industry is supposed to be the engine of economic growth through interlinkages that spur investment. The objective of this study was to examine the influence of scope plans on implementation of projects, consider how funding influences implementation of projects, examine how socio-economic factors affect implementation of projects and finally consider the influence of policy instruments on implementation of government sponsored projects all in Lamu County. The study reviewed existing literature on determinants of completion rate of projects and a number of variables came out significantly including poor project plans, contractors financial difficulties, poor coordination, poor site management, poor feasibility studies, literacy levels, and lack of stakeholders involvement. The study was informed by the fact that out of 71 government sponsored construction projects which were funded in the year 2013/2014, a paltry 6 were completed on time. In line of this, the study sought to find out the influence of various factors on completion of projects including scope plans, funding, socio-economic factors, procurement procedures and governance. Data was collected from a population of 71 construction projects and obtained 52 responses which is 73.23% response rate. Respondents were selected from county government representatives, Project managers, contractors and professionals. A survey instrument (questionnaire) was used to collect data. Descriptive and inferential statistics were used to analyse the data in frequencies and percentages. The study found out that adequate funding is key to ensure that projects reach decommissioning stage. Further, the study found out that project plans play a critical role in promotion of construction projects. It was also realised that socio-economic factors influenced implementation of projects in the area of study. Additionally, the study found that proper procurement processes and good governance greatly influenced implementation of construction projects. The study recommends that the county should allocate sufficient funds to facilitate implementation of construction projects. Secondly, the study recommends preparation and use of effective project plans to ensure that what is done is in line with what is planned in construction projects. This would be achieved by involving professionals to prepare adequate scope plans. Moreover, the study recommends embracing independent and transparent procurement procedures and putting in place good governance in implementation of construction projects.
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# ABBREVIATIONS AND ACRONYMS

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>CDF</td>
<td>Constituency Development Fund</td>
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<tr>
<td>CSFs</td>
<td>Critical Success Factors</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GFCP</td>
<td>Government Funded Construction Projects</td>
</tr>
<tr>
<td>KPMG</td>
<td>Kenya Peat Marwick Goerdeler (accounting firm)</td>
</tr>
<tr>
<td>LC</td>
<td>Lamu County</td>
</tr>
<tr>
<td>EOT</td>
<td>Extension of time</td>
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<tr>
<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
</tr>
<tr>
<td>KIPRRA</td>
<td>Kenya Institute for Public Policy Research Analysis</td>
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study
Globally, the construction industry especially in the public sector is often characterized by delays. This is despite the fact that the goal of project owners, contractors, consultants and all parties involved is to implement the projects within the planned schedule, budget and scope. This has been attributed to a number of factors. Rohaniyati (2009) asserts that, construction projects are frequently influenced by success factors that help project parties reach their goal as planned or delay factors that stifle or postpone project completion in Brunei. While success factors lead to successful completion of projects hence clients, consultants and contractors are satisfied and happy, in Malaysia, Sambisivan and Soon (2007) contend that project delays are insidious often resulting in time overrun, cost overrun, disputes, litigation and complete abandonment of projects.

Faridi and El-Sayegh (2006) reported that shortage of skills of manpower, poor supervision and poor site management, unsuitable leadership, shortage and breakdown of equipment among others contribute to construction delays in the United Arab Emirates. Hanson et al. (2003) examined causes of client dissatisfaction in the South African building industry and found that conflict, poor workmanship and incompetence of contractors to be among the factors which would negatively impact on project performance. Mbachu and Nkando (2007) established that quality and attitude to service is one of the key factors constraining successful project delivery in South Africa. In Egypt, Remon (2013) found out that delays are common in various construction projects and cause considerable losses to project parties. The common results of delays are as follows: late completion of project, increased cost, and disruption of work, loss of productivity, third party claims, disputes; and abandonment or termination of contracts. Therefore, delays in construction projects give rise to dissatisfaction to all involved parties. In Ghana, Frimpong and Oluwoye (2003) found that project financing, economic and natural conditions and material supply were the four major categories of causes of delay and cost overrun factors.
The demand for major projects has never been greater, and largely driven by an increasing global population, aging infrastructure, increasing urbanization, and continued development of emerging markets KPMG (2012). With demand come the challenges for owners, contractors, and other stakeholders to successfully deliver the much needed infrastructure projects Taleb (2009). According to KPMG (2009), the reality of the situation is that similar to world markets, capital projects have become increasingly complex and challenging. According to Smith (2011), large construction projects are inherently complex and the dynamics for their implementation involves proper planning, identifying and conveying clients, and assessing actual needs and requirements accurately to the project team. Briefing is critical to the successful implementation and delivery of construction projects, as there are many limitations, inhibiting effectiveness of such undertakings, resulting in frequent and severe project delays.

Kenya is regarded as the regional hub for trade and finance in East Africa, and many large corporations have their Africa headquarters in Nairobi. Currently, Kenya is going through a construction boom. The government has invested heavily on the construction sector of Kenya in order to improve the infrastructure such as road networks, and at the same time provide new residences for the locals. Kenya has a well developed construction industry. With increase in population, opportunities exist in the construction of residential, commercial and industrial buildings, including prefabricated low cost Housing. Lamu County is one of the regions classified as hardship areas in Kenya. Both the national and county governments have invested heavily in construction projects in the area. Lamu County is a devolved unit of the national government which is independently put in place to conduct various development projects at the grassroots level. The Lamu County Development Report, end of the year 2014 indicates, 71 number of construction projects were scheduled to be completed by the year 2014. However, this was not achieved since only 5 of those projects were completed while 66 of them have been described as ongoing. Such slow rate of implementation is occasioned by a number of factors which may include contractors’ inadequacies, lack of project plans, poor site management and supervision, incompetence of project team members, ineffective procurement and unfavourable economic conditions among others.
1.1.1 Role played by the Construction Industry in Kenya

Building and construction sector enhances growth in the economy through interlinkages that spur other investments. The number of people employed in the building and construction sector has been rising but not as high as in other industries (Republic of Kenya, 2010). The level of wage payment in building and construction, the private sector level of wage payment has remained higher than the wage payment in the public sector. The wage payment in the building and construction industry has for a long time been ranked either number three or four from the bottom when compared with other industries in the economy. On the overall, the materials and labour cost indices in the sector have been on upward trend. This shows that should there be a delay in the construction process, the cost of the investment is likely to rise and overrun the budget. This means that the economy would not grow at the rate envisaged in the period.

Although the contribution of the building and construction sector to the GDP has stagnated at about 3.8%, its contribution to economic growth has been rising in the recent past. This is mainly due to increased infrastructural investment by the government. Republic of Kenya (2010) showed that the bulk of the new jobs in the modern sector were created in building and construction, transport and communication, wholesale and retail trade, restaurants and hotels. In the year 2010, the growth in the building and construction sector was 4.5% while in the previous year 2009, the sector grew by 12.4%. This shows that there was great fall in growth in the sector during the year 2010. The total value of reported private buildings works completed in the selected main towns went up significantly from Kshs.21.8 billion in 2009 to Ksh.37.3 billion in 2010. In the year 2011, the building and construction sector grew by 4.3%. The Republic of Kenya (2010) showed that the total value of private building works completed went up from 37.3 billion in 2010 to 43.1 billion in 2011.

Development of infrastructure is one of the key pillars in achieving the Vision 2030. The building and construction sector must be allocated resources in cost effective manner so that the Vision 2030 can be realized. From the analysis, it shows that the level of employment and growth in the building and construction sector can be
affected by failure to allocate resources effectively to capital projects in the sector (Republic of Kenya, 2007).

1.2 Statement of the Problem
Successful implementation of Government funded construction projects in Kenya and any other part of the world is critical since it is the only way the citizenry can enjoy services provided by those projects. Governments gain credibility based on the number of successful projects they sponsored. Politicians are not left behind since they validate their stay in public office if they support projects by formulating favorable policies. Contractors and consultants find easy time to move their equipment and service to new project sites and in effect make more profits by completing projects on schedule.

Sambasivan and Soon, (2007) agrees that delay in construction is a global phenomenon affecting not only the construction industry but the overall economy of countries as well. Faradi and El-Sayegh; (2006) says, delay involves multiple complex issues all of which are invariably of critical importance to the parties to the construction contract. These issues concern entitlement to recover costs of delay or the necessity to prolong the project with the consequential entitlement to recovery costs for adjustments to the contract schedules. Today, many stakeholders in construction are becoming increasingly concerned about the duration of construction projects because of increasing interest rates, inflation, commercial pressures, Nkado (1995), and of course, it’s potential to result in disputes and claims leading to arbitration or litigation.

Similarly, Chan and Kumaraswamy (1997) identified poor site management and supervision as the most important cause of time overruns in Hong Kong construction projects. El-Razek, Bassioni, and Mobarak (2008) found that the owners and consultants considered financing by contractor during construction as the top cause of delay in Egyptian building projects. Aibinu and Odeyinka (2006) found that contractors' financial difficulties were the most important cause of construction delay in Nigeria. Maina (2004), found out that Kenya is replete with incomplete, delayed or abandoned government sponsored construction projects which have been commonly referred to as white elephants. Ondari (2013) considers management support, design specifications, contractor's capacity and supervision capacity as influencers of
successful completion of roads projects in Kenya. Mono (2013) concludes that contractor’s experience, contractor cash flow, site management, employer’s ability to honour contractor’s certificates on time, and adequacy of funding from external sources to be determinants of successful delivery of housing construction projects in the Ministry of Housing in Nairobi, Kenya. According to Owuor and Ruth, (2013), the impact of delays is that funds committed on projects do not benefit intended recipients and subsequently results in cost and time overrun. Wanjiku (2012) contends that financial issues, human resources conditions, site characteristics and design quality aspects to be factors influencing performance of contractors of government funded building projects in Kirinyaga County. This study sought to examine determinants of completion of construction projects in Lamu County namely; influence of scope plans, funding, socio economic factors, procurement procedures and governance.

1.3 Purpose of the Study

The purpose of this study was to examine determinants of implementation of government funded construction projects in Lamu County.

1.4 The Objectives of the Study

This study was guided by the following objectives:

i. To determine the extent to which project scope affects implementation of government funded construction projects in Lamu County.

ii. To examine the extent to which funding influences implementation of government funded construction projects in Lamu County

iii. To find out how socio-economic factors influence on implementation of government funded construction projects in Lamu County

iv. To determine the moderating influence of procurement procedures on implementation of government funded projects.

v. To determine the moderating influence of governance on implementation of government funded construction projects.
1.5 Research Questions
This study was guided by the following research questions:

i. To what extent does project scope determine implementation of government funded construction projects in Lamu County?
ii. How does funding influence implementation of government funded construction projects in Lamu County?
iii. How does socio-economic factors influence implementation of government funded construction projects in Lamu County?
iv. To what extent do procurement procedures influence implementation of government funded construction projects in Lamu County?
v. How does governance influence implementation of government funded construction projects in Lamu County?

1.6 Significance of the Study
This study is significant to project managers since it will equip them with necessary information to alleviate delays and successfully deliver projects on planned time and cost. This will promote efficiency and facilitate implementation of projects.

The study is significant to the county project contractors as it will enable them determine the factors leading to implementation of projects in the County and thus determine all variables that are outlined to ensure projects are implemented in the County.

The study will assist government to identify and remove blockades in policy and create favorable environment for successful project implementation. This will in turn give government value for money and improved service delivery.

1.8 Assumptions of the Study
In order to undertake this study, the researcher made the following two assumptions:

This study was based on the following assumption:

i) Documented information on the study topic would be available
ii) Implementation of government funded construction projects was mainly influenced by the variables stated in the study objectives.
iii) Informants would be truthful.

1.9 Delimitation of the Study
The study was conducted within Lamu East and Lamu West constituencies in Lamu County. The study was restricted to five determinants of implementation of government funded projects in Lamu County. They included: project scope, funding, socio-economic factors, procurement procedures and government policies.

1.10 Limitations of the Study
Limitations are influences that the researcher cannot control. They are the shortcomings, conditions or influences that cannot be controlled by the researcher that place restrictions on your methodology and conclusions. These include:

i. Poor access. This study was done in a hardship area. The place, Lamu County lacks basic infrastructure services and the researcher spent more resources to collect data. The researcher engaged research assistants to collect data and employ available technologies to prepare the study report.

ii. Time: Data collection took a lot of time as it involved going out in the field to meet the research participants and interviewing them. In the process, some participants were not available for interview at the agreed time and, hence rescheduling had to be arranged.

iii. Cost: Research was very expensive. Costs were incurred in travelling, accommodation and employment of research assistants.

1.11 Definition of Significant Terms

Project Scope: is the part of project planning that involves determining and documenting a list of specific project goals, deliverables, budgets and timelines

Funding: Supply of necessary funds for project implementation. These are funds from government and/or donors.

Socio-Economic: is the social science that studies how economic activity affects and is shaped by social processes. In general it analyses how societies progress, stagnate or regress because of their local or regional economy or the global economy.

Procurement Procedures: These are policy processes used to procure goods and services. This involves procurement committees and tendering systems.
Governance: Refers to the formal and informal arrangements that determine how public decisions are made and how publications are carried out, from the perspective of maintaining a country's constitutional values in the face of changing problems, actors and environments.

Successful Implementation: Application of effective skills to successfully deliver required project within the planned time, schedule, budget and standard.

1.12 Organisation of the Study

This study is organized in five chapters. Chapter one provides background information on determinants of implementation of government funded construction projects in Lamu County. Statement of the problem, research objectives, purpose of the study, research questions and hypothesis that the study looked forward to answer, significance, assumptions, delimitations and limitations of the study. It also provides definitions of significant terms used in the study.

Chapter two is a review of Literature on previous works done on construction projects, especially on factors influencing implementation of construction projects such as project scope, funding, socio economic factors, procurement and governance. These discussions are based on the research objectives of the study.

Chapter three outlines the Research Methodology used for purposes of completing the study. It describes research design, population of the study, sample size and sampling procedures, data collection instruments, ethical considerations and operational definition of the variables.

Chapter four entails data presentation and interpretation of the study; it includes the demographic profile of the respondents and analysis of the objectives presented in frequencies and percentages with a concluding regression analysis showing the relationship of variables under study.

Chapter five entails summary of findings, discussion, recommendations and conclusion of the research. It also contains suggestions of related studies that may be carried out in the future.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers an overview of government construction projects, project scope and implementation of government funded construction projects (GFCP), adequate funding and implementation of GFCP, socio-economic factors and implementation of GFCP, procurement procedures and implementation of GFCP, and governance and implementation of (GFCP) in Lamu County.

2.2 Government construction projects

In both developed and developing countries, the construction industry plays a major role in the economy by significantly contributing to gross domestic product, employing sizeable portion of the working population, accounting for about half of the capital formation, and interacting strongly with the other sectors of the economy (Hillebrandt, 1985). However, this is not the case in most government funded construction projects. They are faced with a myriad of challenges which slows down completion rate, leading to time, budget and schedule overruns and sometimes abandonment.

Cooperation and coordination among different parties involved in a project facilitates implementation. In contrast, conflicts are detrimental to the smooth progress of work and thus cause time overruns (Iyer & Jha, 2006). Coordination among parties was found to be among the top ten causes of delay in construction projects in Lebanon and Egypt (El-Razek et al, 2008). Sweis (2008) found that the owners and consultants recognized poor planning and scheduling as the most critical delay cause of construction projects in Jordan, and demonstrated that this cause was relevant to shortage of technical professionals in contractors, insufficient coordination among parties, as well as ineffective quality control by contractors. In addition, planning and scheduling problems were also perceived as an important source of construction delay in Thailand, where project plans were not insufficient detail and regularly updated (Ogunlana, Promkuntong, 1996).
In the United Kingdom, Li, Akintoye, Edwards and Hardcastle (2005) contends that effective procurement, project implementation ability, government guarantees, and favourable economic conditions are critical success factors (CSFs) for public-private partnership projects. In Bulgaria, Alexandrova and Ivanova (2012) considers competence of project manager, competence of project team, quality of subcontractor services, and top management support as CSFs of project management. In Lithuania, Gudiene, Ramelyte and Banaitis (2013) states that project management’s experience, project value, project manager’s experience, experience of contractor, project size, competence of project team members, clear and realistic goals, decision making effectiveness of project management, and technical capability of project management are the most important success factors for construction projects.

Socio – economic factors involve the interaction of economics and human behavior, they may include lack of community involvement, cultural factors and literacy levels. Active community participation in project planning and implementation may improve project design through the use of local knowledge; increase project acceptability; produce a more equitable distribution of benefits; promote local resource mobilization; and help ensure project sustainability. Culture is one of the most influential factors of successful project implementation in enterprises and is part of the overall organisational culture (Skarabot, 1998). Project culture is the general attitude to projects within the business. Most projects do not operate in isolation; they have to operate within a business environment that should be complementary to the requirements of good project management. The culture affects strategic planning and implementation, project management, and everything else (Cleland, 1999).

Government funded construction projects in Kenya are numerous with some of them successful, others taking too long to be completed and others seem to be completely abandoned. Studies have been carried on these projects with a wide range of success factors identified. Ondari (2013) considers management support, design specifications, contractor’s capacity and supervision capacity as influencers of successful completion of roads projects in Kenya. In the same way, Meroka (2011) contends that financial viability, management, market analysis and quality of project management to be success factors of industrial and commercial projects in Kenya. Mono (2013) concludes that contractor’s experience, contractor cash flow, site management, employer’s ability to honour contractor’s certificates on time, and
adequacy of funding from external sources to be determinants of successful delivery of housing construction projects in the Ministry of Housing in Nairobi, Kenya.

Public procurement is defined as the processes where by public sector organisations acquire goods, services and works from third parties. It includes much that supports the work of government and ranges from Routine items (e.g. stationery, temporary office staff, furniture or printed forms), to complex spend Areas (e.g. construction, Private Finance Initiative projects, aircraft carriers or support to major change initiatives). It also includes a growing spend where the private sectors provide key services directly to citizens in areas such as welfare to work, further education, social care and health (Bolton, 2006). Such services may also be provided by the public sector directly, and in some cases even this public provision can be handled through procurement mechanisms. A public body may bid for government work against private sector firms through a formal competitive process (Anderson, 2001).

Project governance has developed from the broader concepts of corporate governance. Corporate governance is concerned with a set of relationships between an organisation's management, its board, its owners and other stakeholders. It provides the structure through which the objectives of the company are set, the means by which achievement of those objectives are agreed and how company performance against those objectives is monitored.

2.3 Project Scope and Implementation of government sponsored projects

Project scope is a part of project planning that involves determining and documenting a list of specific project goals, deliverables, tasks and deadlines. This is realised by carrying out comprehensive feasibility studies. Inadequate feasibility studies may lead to poor scoping hence failure to capture critical elements in a project scope. This will eventually lead to inadequate project plans which will ultimately affect implementation of a project. Frank, (2010) identifies underestimation of the costs of projects, poor supervision, and underestimation of time for completion of projects by contractors, shortage of materials, poor professional management and fluctuation of prices of materials as major factors behind delays in construction projects. Sweis (2008) found that the owners and consultants recognized poor planning and scheduling as the most critical delay cause of construction projects in Jordan, and
demonstrated that this cause was relevant to shortage of technical professionals in contractors, insufficient coordination among parties, as well as ineffective quality control by contractors. In addition, planning and scheduling problems were also perceived as an important source of construction delay in Thailand, where project plans were not insufficient detail and regularly updated (Ogunlana, Promkuntong, 1996). Delay analysis is either ignored or done subjectively by simply adding a contingency. As a result, many major projects fail to meet schedule deadlines (Al-Momani (2000).

The duration of construction projects is increasingly becoming an issue of concern among the stakeholders in the construction industry. This is because of the increasing rates of interests, commercial pressure, inflation and the potential of a construction project to result in disputed and claims leading to litigation or arbitration (Mobarak, 2008). Plans considered by owners for facility financing typically have both long and short term aspects. Many of these financing options involve the participation of third parties such as banks or bond underwriters. For private facilities such as office buildings, it is customary to have completely different financing arrangements during the construction period and during the period of facility use. On the other hand, the options for borrowing by contractors to bridge their expenditures and receipts during construction are relatively limited (El Razek, 2008). Construction projects are graded very successful if the work is completed within budget and to the deadlines agreed in the specification. However, the sad truth is that not all projects are guilty of being successful (Barnes, 2012). Ferry. (1998) argues that many projects experience failure due to the uncertainties associated with construction projects which include weather, materials, equipment, money and profitability, disagreements between clients, contractors and subcontractors, statutory regulations, economic and political issues and functionality and purpose.
2.4 Funding and Implementation of government funded construction projects

Adequate and timely funding is essential for project success. Inadequate funding and untimely funding may interfere with implementation schedule of projects. Zagorsky (2007) identifies contractors' financial difficulties as major causes of delays in government sponsored construction projects. He further defines contractors' financial difficulties as the contractor not having sufficient funds to carry out the construction works. This includes payment for the materials, labourers' salaries and equipment to be used for the construction work.

Thornton (2007), in his survey, found that slow collection, low profit margins and insufficient capital or excessive debt are the three major causes of financial difficulties among contractors. Slow collections topped the list in the years 2007 and 2005, in which the contractor received late payment from the client. This is supported by Arshi and Sameh (2005), Majid and McCaffer (1998) who found that delay in payment from the client would eventually cause financial difficulties to the contractor. Thus, most of the construction works cannot be carried out due to these financial difficulties. El-Razek, Bassioni, and Mobarak (2008) found that the owners and consultants considered financing by contractor during construction as the top cause of delay in Egyptian building projects. Aibinu and Odeyinka (2006) found that contractors' financial difficulties were the most important cause of construction delay in Nigeria.

Coulter and Kelley (1992) postulated that insufficient capital is one of the major causes of financial difficulties among contractors. Poor financial control by the contractor can lead to insufficient capital (Liu, 2010). Hence, the contractor will have excessive debt which causes them to face financial difficulties as they cannot pay back the debt. Majid (1998) found that material shortages are due to poor materials planning, inefficient communication, unreliable suppliers and late delivery. Mochal (2003) stated that poor planning is mistake number one in project management. This is reflected in the scenario in which poor materials planning from the contractor could lead to material shortage because the materials needed for construction may not be available within a certain time frame. This is due to mistakes in the planning stage relating to when the materials are expected to be used in the construction phase leading to project delays. Wanjiku (2012) contends that financial issues, human
resources conditions, site characteristics and design quality aspects to be factors influencing performance of contractors of government funded building projects in Kirinyaga County.

2.5 Effect of Socio-Economic factors on Implementation of Projects

Socio economic factors involve interaction of economics and social behaviour. These are factors that may be within or without the control of contractors which can affect completion rate of projects. They may include lack of community involvement, cultural factors, and literacy levels, among others and may all lead to cost and schedule overruns and affect completion rate of projects.

Cost overrun is a situation where the amount of money used is greater than the initial project cost or estimated cost. Aibinu and Jagboro (2002) found that cost overrun is the most frequent effect of delay in Nigeria. This is further supported by Sambasivan and Yau (2007) who found that cost overrun was ranked second in their study of delay effects in the Malaysian construction industry. This is due to overtime costs in order to continue the construction work and any compensation required as a result of the delay (Hanna, 2004). Besides that, additional money is required for rework if any construction mistakes have occurred. According to Sun and Meng (2009), the cost of rework can be as high as 10-15% of the estimated project cost. This shows that cost overrun is one of the most frequent effects of delay in the construction industry.

Extension of time is an event where extra time is requested in order to complete the project (USLegal, 2010). According to Odeh and Battaineh (2002), client related delay is the major factor contributing to delays. Thus, contractors can claim suitable EOT if the cause of delay is beyond the control of the contractor and is brought about by client related factors (Othman, 2006). This is mentioned by Williams (2003) in his study on assessing Extension of Time delays on major projects. Usually contractors can claim EOT due to client or owner related delays in construction projects. In United Kingdom, Li Akintoye, Edwards and Hardcastle (2005) contend that effective procurement, project implementation ability, government guarantees, and favourable economic conditions are critical success factors (CSFs) for public-private partnership projects. In Bulgaria, Alexandrova and Ivanova (2012) considers competence of project manager, competence of project team, quality of subcontractor services, and top management support as CSFs of project management. In Lithuania, Gudiene,
Ramelyte and Banaitis (2013) states that project management’s experience, project value, project manager’s experience, experience of contractor, project size, competence of project team members, clear and realistic goals, decision making effectiveness of project management, and technical capability of project management are the most important success factors for construction projects.

Faridi and El-Sayegh (2006) reported that shortage of skills of manpower, poor supervision and poor site management, unsuitable leadership, shortage and breakdown of equipment among others contribute to construction delays in the United Arab Emirates. Hanson et al. (2003) examined causes of client dissatisfaction in the South African building industry and found that conflict, poor workmanship and incompetence of contractors to be among the factors which would negatively impact on project performance. Cooperation and coordination among different parties involved in a project facilitates its completion on time. In contrast, conflicts are detrimental to the smooth progress of work and thus cause time overruns (Iyer & Jha. 2006).

According to Nichol (2008) late payment is a common problem especially during times of economic crisis. This is supported by Still (2000) who found that late payment is a major problem in Western countries. In the study by Odeh and Battaineh (2002), late payment was the second highest factor contributing to delay, ranked by consultants. Late payment may occur during the construction process and it is likely to be more severe during delay periods. The owner or client may use postponement of the project as a reason to delay the payment to the contractor. Some government funded construction projects might be large and complex and they will take several years to be completed. Economic factors such as inflation will have an effect on them. Social factors such religion and culture needs to be taken into account during planning since they may affect project implementation. The study seeks to find out how these factors affect the rate of completion of projects.

2.6 Procurement Procedures influence on government Funded Projects

Public procurement is defined as the processes where by public sector organisations acquire goods, services and works from third parties. It includes much that supports the work of government and ranges from Routine items (e.g. stationery, temporary office staff, furniture or printed forms), to complex spend Areas (e.g. construction,
Private Finance Initiative projects, aircraft carriers or support to major change initiatives). It also includes a growing spend where the private sectors provide key services directly to citizens in areas such as welfare to work, further education, social care and health (Bolton, 2006). Such services may also be provided by the public sector directly, and in some cases even this public provision can be handled through procurement mechanisms. A public body may bid for government work against private sector firms through a formal competitive process (Anderson, 2001).

Sound public procurement policies and practices are among the essential elements of good governance (World Bank, 2002). Irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated (Otieno, 2004). In some cases, tenders are awarded to firms either through single sourcing or manipulation of bids; and worse still, full payments have often been made for projects that fail to take off or are abandoned half way. Still in other cases, tenders are awarded to un-competitive bidders through irregular disqualification of the lower bidders. According to Thai (2001), the basic principles of good procurement practice include accountability, where effective mechanisms must be in place in order to enable procuring entities spend the limited resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are convincing reasons for single sourcing; and consistency, which emphasizes the equal treatment of all bidders irrespective of race, nationality or political affiliation. An ideal procurement system should also focus on effectiveness, where procuring entities should meet the commercial, regulatory and socio-economic goals of government in a manner that is appropriate to the procurement requirement. Furthermore, a good procurement practice should embrace: efficiency, which requires that procurement processes be carried out as cost effectively as possible; fair dealing, where suppliers should be treated fairly, without discrimination or prejudice including protection of commercial confidentiality where necessary.

The process should also uphold integrity by ensuring that there are no malpractices; informed decision making, which requires public bodies to base decisions on accurate information and ensure that basic requirements are being met. Moreover, the procurement practice should be responsive to aspirations, expectations and needs of
the target society. Finally, there is need for transparency to enhance openness and clarity on procurement policy and its delivery (World Bank, 2002). Various studies have shown that procurement and revenue management form the core functions of public financial management, particularly within the Medium Term Expenditure Framework (MTEF). The main objectives of the MTEF include linking policy, planning, budgeting; achieving fiscal discipline through a realistic macro-economic framework; resource allocation, efficiency in line with strategic priorities and operational efficiency through delivery of quality managerial services. Public procurement within the MTEF, framework aims at advancing social economic development by improving elements such as economic growth, poverty reduction, decentralization and enterprise development in the private sector. In addition, public procurement within the MTEF is also closely linked to the export market development as well as foreign direct investment into the country (KIPPRA 2005). In most developing countries, public procurement serves a greater role than it does in developed nations. This is because in developing countries, governments are the main buyers of goods and services. In this regard they often influence the size, structure, conduct and performance of national industries (KIPPRA, 2006).

2.7 Governance and Implementation of government Funded construction projects

Project governance is the framework which ensures that the project has been correctly conceived and is being executed in accordance with best project management practice and within the wider framework of the organisation’s governance processes (CDPRD, 2014).

The government is ultimately responsible for all public sector resource investments. Its governance role therefore spans all public sector activities including project delivery and investment benefit realisation, which is usually through ongoing services (Talikhaba, 1999). Appropriate and timely project reporting is an important contribution to the government’s governance monitoring role. For government, risk management is an essential element of the governance task for effective delivery of benefits from investments. Project governance is about guiding and monitoring the process of converting investment decisions into value for the organisation, delivering the anticipated benefits, the business outcomes and benefits to intended beneficiaries.
To address the problem of project overruns, researchers in large project management have moved their focus from execution phases and best practices towards front end phases and project governance frameworks, having realised that even well managed projects have ended in failure in the eyes of society, the investors and other stakeholders. (Klakegg, Williamsetal. 2007). Project governance is recognised as a critical factor for success in project delivery. Garland (2009) asserts that megaprojects are qualitatively more complex and risky, and therefore require governance regimes that are different from those of more routine and less risky endeavours. Ondari (2013) considers management support, design specifications, contractor’s capacity and supervision capacity as influencers of successful completion of roads projects in Kenya. In the same way, Meroka (2011) contends that financial viability management, market analysis and quality of project management to be success factors of industrial and commercial projects in Kenya.
2.8 Conceptual Framework

The conceptual framework outlines the dependent, independent and intervening variables as discussed in the literature review and elaborated in the Figure 1 below. It helps one to understand the relationship between the variables of the study.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Scope</strong></td>
<td></td>
</tr>
<tr>
<td>- Budgeting</td>
<td></td>
</tr>
<tr>
<td>- Scheduling</td>
<td></td>
</tr>
<tr>
<td>- Designs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Funding</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Funds allocated</td>
</tr>
<tr>
<td>- Funding Method/mode</td>
</tr>
<tr>
<td>- Influence of funding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Socio-Economic Factors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Qualified personnel</td>
</tr>
<tr>
<td>- Community Involvement</td>
</tr>
<tr>
<td>- Cultural factors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Successful Implementation of Construction projects</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Number of projects completed</td>
</tr>
<tr>
<td>- Time of completion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Procurement Procedure and governance</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Tender systems</td>
</tr>
<tr>
<td>- Procurement committees</td>
</tr>
<tr>
<td>- Accountability levels</td>
</tr>
</tbody>
</table>

Moderating variable

Figure 1: Conceptual Framework
2.9 Summary of Chapter and Research gaps

This chapter discusses the major determinants of project implementation in the county. Project scope reviews details in the plans and how helpful they are in ensuring projects are carried out to completion. As part of project scope management, the team leader should solicit approvals and sign-offs from the various stakeholders as the project proceeds, ensuring that the finished project, as proposed, meets everyone’s needs. Secondly, adequate and timely funding is essential for project success since inadequate funding and untimely funding may interfere with implementation schedule of projects as financial difficulties are major causes of delays. Socio economic factors has been discussed as having an influence on completion rate of projects; lack of community involvement, qualified personnel and cultural factors may lead cost and schedule overruns and affect implementation of projects. Procurement encompasses the entire operation including a company’s requisitioning, transportation and in-bound receiving processes where the dominant goal is process efficiency. Project governance is a critical component of any project since while the accountabilities and responsibilities associated with an organization’s business as usual activities are laid down in their organizational governance arrangements, seldom does an equivalent framework exist to govern the development of its capital investments (projects), yet an effective governance framework influences implementation.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
This chapter describes the methodology used in conducting the study. It explains the research design chosen for the study, target population, sampling techniques, data research instruments, validity and reliability of research instruments, data collection procedure and data analysis techniques.

3.2 Research Design
A census was adopted in carrying out the study, to examine the determinants of implementation of government funded construction projects in Lamu County. Descriptive survey was used focusing on finding out what, when and how much of phenomena. Descriptive survey design involves collection of data from a sample of a population in order to determine the current status of that population with respect to one or more variables Mugenda (1999). This method is appropriate since the study is not establishing causal relationships but rather addresses the characteristics of a population.

3.3 Population of the study
A population can be defined as the complete set of subjects that can be studied, people, objects, plants, animals, organizations from which a sample may be obtained: (Shao,1999). The target population for the study was 71 government funded construction projects in Lamu County in the year 2014.

3.4 Sample Size and Sampling Procedures
Sampling technique is the process of selecting a specific number of objects to form respondents for study; (Ngulube, 2003). Non probability sampling technique was applied. Non probability approaches are suitable for in-depth qualitative research in which the focus is often how to understand complex social phenomena, (Marshall 1996). Convenience and purposeful sampling technique was used to select respondents. Although this technique is criticized for bias and making generalizations about the entire population, the technique was appropriate given that this was a pilot study and allowed the researcher to obtain basic data and trends regarding the study.
According to Borg and Gall, (2003) at least 30% of the total population is representative of the study population. Mugenda and Mugenda, (2003) explains that the target population should have some observable characteristics to which the researcher intends to generalize the results of the study.

The sampling size was 71 but the respondents were 52 of the construction projects funded by the county government of Lamu giving a response rate of 73%. The respondents included construction engineers, construction supervisors, project managers and county employees.

3.5 Data Collection Instruments
The data for this research used was primary data. Primary data was collected at the field using questionnaires. Questionnaires were used because the population is literate and able to comprehend the questions. It is appropriate since respondents can even take their time and respond comprehensibly. Such information is best collected using questionnaires as recommended by Mugenda and Mugenda (1999).

In order to improve the response rate and quality of data gathered, the researcher administered the questionnaires personally and picked the questionnaires once completed.

3.6 Validity and Reliability of Instruments
Frankel and Wallen (2008) define validity as the appropriateness, correctness and meaningfulness of the inferences selected on research results. It is the degree to which results obtained from analysis of the data actually represent the phenomenon under study. The question of validity is raised in the context of the form of the test, the purpose of the test and the target population. The researcher concentrated on content validity. Mugenda and Mugenda (2003) define content validity as a measure of the degree to which data collected using a certain instrument represent a specific domain of indicators or content of a particular subject.

Reliability is the degree to which a test consistently measures whatever it measures (Gay, 1987). It is the ability to consistently yield the same results when repeated measurements are taken under the same conditions. Reliability was assessed using the Split half technique and questionnaires administered to a small group of respondents. The questionnaire items were assigned arbitrary scores and data entered into computer software for Statistical Package for Social Sciences.
3.6.1 Validity of Instruments
Instrument validity refers to accuracy, meaningfulness and technical soundness of the research instrument; Mugenda and Mugenda (1999). The questionnaire guide are said to be valid when they actually measure the intended parameters; Borg and Gall, (1989). The researcher enhanced the validity of the instrument by subjecting them to the supervisor appraisal and also carried out a field pre-test through a pilot of a few respondents. The researcher then made adjustment of the tools to improve validity.

3.6.2 Reliability of Instruments
Reliability is the extent to which the results are consistent over time and are accurate representation of the total population of the study.

Instrument reliability is the dependability and trustworthiness of the test. This was measured through a test-retest technique where the questionnaire was administered to a group of fifteen individuals with similar characteristics as the actual sample. The test was then repeated after one week. The scores obtained from both tests were correlated to get the coefficient of reliability. The Spearman’s rank correlation coefficient of 0.78 was obtained. This implied that the instrument was over 70% reliable.

3.7 Data Collection Procedures
The researcher sought permission from the local administration of Lamu County to conduct the study in the area. After getting informed consent, the researcher recruited two research assistants to assist in data collection. The research assistants were trained on the research objectives and guided on techniques of administering the questionnaires. The questionnaires were administered to the construction engineers, construction supervisors, project managers and county employees.

3.8 Ethical Considerations
The researcher sought consent to carry out data collection from the respondents. Secondly, the researcher made it an obligation to protect sources of information which was critical and sensitive. The information obtained was used for academic purposes and for mutual benefit of stakeholders.
3.9 Data Analysis Methods

Data analysis is the process of obtaining raw data and converting it into information useful for decision making by users. Data is analyzed to answer questions, test hypotheses or disprove theories.

The nature of data collected was quantitative and qualitative. It was analyzed using descriptive statistics as well as inferential statistics. According to DeCaro, (2003), descriptive statistics describes a big hunk of data with summary, charts and tables but do not attempt to draw conclusions about the population. Inferential statistics tests hypothesis to draw conclusions about the population under study. This study used both descriptive and inferential statistics by way of charts, frequency diagrams, graphs and percentages to summarize data. The study used regression analysis to analyze data.

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + \epsilon \]

Where:

- \( Y \) = Project Completion Rate (Dependent variable).
- \( a \) = Constant
- \( b_1, b_2, b_3, b_4, b_5 \) = Coefficients of Implementation dimensions.
- \( X_1, X_2, X_3, X_4, X_5 \) = Project Implementation dimensions (Independent variables).
- \( X_1 \) = Project Scope
- \( X_2 \) = Funding
- \( X_3 \) = Socio – Economic Factors
- \( X_4 \) = Procurement
- \( X_5 \) = Governance
- \( \epsilon \) = Error term.
### 3.10 Operational Definition of Variables

**Table 3.8: Operational Definition of variables**

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Type of Variable</th>
<th>Indicator</th>
<th>Measurement Scale</th>
<th>Data analysis method</th>
<th>Tools of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent does project scope determine implementation of government funded projects?</td>
<td>Independent</td>
<td>scope plans</td>
<td>feasibility designs budget time</td>
<td>Ordinal Nominal</td>
<td>Regression correlation coefficient</td>
</tr>
<tr>
<td>How does funding influence implementation of government funded construction projects</td>
<td>Funding</td>
<td>Funds allocated Source of funding Methods of funding</td>
<td>Amount of money spent on various projects Number of completed projects</td>
<td>Ordinal Nominal</td>
<td>Regression correlation coefficient</td>
</tr>
<tr>
<td>How does socio-economic factors influence implementation of government funded construction projects</td>
<td>Socio-economic factors</td>
<td>Cultural Influences Qualified personnel Community Involvement</td>
<td>Literacy level Public participation</td>
<td>Ordinal Nominal</td>
<td>Regression correlation coefficient</td>
</tr>
<tr>
<td>How does procurement process</td>
<td>Procurement process Tender systems</td>
<td>Types procedures</td>
<td>Ordinal Nominal</td>
<td>Regression correlation coefficient</td>
<td></td>
</tr>
<tr>
<td>procedures moderate implementation of government projects?</td>
<td>Procurement Systems</td>
<td>coefficient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How does governance moderate implementation of government projects?</td>
<td>Moderating Transparency Stakeholders involvement</td>
<td>Level of participation Use of local materials</td>
<td>Ordinal nominal</td>
<td>Regression correlation coefficient</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction
This chapter discusses the interpretation and presentation of the findings. Data collected was keyed and analysed by simple descriptive analysis using Statistical Package for Social Sciences (SPSS) version 20 software. Regression analysis was used to determine relationships between the variables under study. Data was then presented through tables and narrative analysis. The chapter presents data in different sub- sections that is: general information on category of gender, position, experience and level of education of the respondents.

4.2 Response Rate
Questionnaires were administered to 71 respondents and 52 responses were obtained which is 73% response rate of the entire population of the study. The collected data which is 73% of the response formed basis for this analysis.

4.3 Demographic Characteristics of Respondents
The study wanted to find out the demographic information of the respondents in terms of gender, age and education level.

4.3.1 Gender of respondents
The study found out the gender composition of the respondents in the study as shown in table 4.3.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>12</td>
<td>23.1</td>
<td>23.1</td>
</tr>
<tr>
<td>Male</td>
<td>40</td>
<td>76.9</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
From table 4.3, male respondents were highest, since they formed the majority, with 76%, compared to the female counterparts at 23.1%. This is an indication that the construction projects are male dominated in the industry.

### 4.3.2 Respondents Position

The study sought to find respondents position in the study and the results are as shown in table 4.4.

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Representative</td>
<td>4</td>
<td>7.7</td>
<td>7.7</td>
</tr>
<tr>
<td>Project Manager</td>
<td>28</td>
<td>53.8</td>
<td>61.5</td>
</tr>
<tr>
<td>Contractor</td>
<td>12</td>
<td>23.1</td>
<td>84.6</td>
</tr>
</tbody>
</table>

**Total** 52 100

From table 4.4, the respondents' position are as follows: Project manager 53.8%, Contractors 23.1%, Consultants 15.4%, and lastly County representatives 7.7%, in that order whom is involved in the construction of the government funded projects in the county.

### 4.3.3 Age distribution of Respondents

The study sought to find the age brackets of the respondents in the study and the results are as shown in table 4.5.

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 29</td>
<td>16</td>
<td>30.8</td>
<td>30.8</td>
</tr>
<tr>
<td>30 - 39</td>
<td>12</td>
<td>23.1</td>
<td>53.8</td>
</tr>
<tr>
<td>40 - 49</td>
<td>16</td>
<td>30.8</td>
<td>84.6</td>
</tr>
<tr>
<td>Over 50</td>
<td>8</td>
<td>15.4</td>
<td>100</td>
</tr>
</tbody>
</table>

**Total** 52 100
From table 4.5, the age bracket of the majority respondents in the study are at 30.8% in the bracket of 40-49 which are at tie with 20-29 age bracket, while 23.1% and 15.4% in that order of the respondents involved in the construction of the projects in the County.

4.3.4 Experience of Respondents in Construction
The study sought to find out respondents experience in construction projects in the county and the results are as shown in table 4.6.

Table 4.6 Experience of respondents in Construction

<table>
<thead>
<tr>
<th>Period</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months to 1 year</td>
<td>8</td>
<td>15.4</td>
<td>15.4</td>
</tr>
<tr>
<td>1 - 3 Years</td>
<td>8</td>
<td>15.4</td>
<td>30.8</td>
</tr>
<tr>
<td>3 - 5 Years</td>
<td>36</td>
<td>69.2</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

As stated in table 4.6 the study sought to find out the period the projects take to be completed in the county. The study sought to find out the experience of respondents in construction in the county. Majority of the respondents have an experience of over 3 years at 69.2% while between 6 months to 3 years’ experience at 15.4%.

4.3.5 Education Level of Respondents
The study sought to establish the level of education of the respondents that are involved in the construction of the projects in the County and the findings are as shown in the table 4.7. 

29
Table 4.7 Education Level of Respondents

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary/Secondary Ed.</td>
<td>8</td>
<td>15.4</td>
<td>15.4</td>
</tr>
<tr>
<td>Tertiary Level</td>
<td>16</td>
<td>30.8</td>
<td>46.2</td>
</tr>
<tr>
<td>Undergraduate Level</td>
<td>16</td>
<td>30.8</td>
<td>76.9</td>
</tr>
<tr>
<td>Postgraduate Level</td>
<td>12</td>
<td>23.1</td>
<td>100</td>
</tr>
</tbody>
</table>

Total 52 100

From table 4.7 analysis, those at undergraduate and tertiary level form the majority at 30.8% followed by postgraduate level at 23.1% and lastly primary/secondary education level form the least at 15.4%.

4.4 Project Scope Influence on Implementation of Projects

The researcher sought to find out how plans in the county are helpful in the construction of the projects as well as how helpful this plans are in influencing project implementation in the county the study is as outlined below

4.4.1 Project Plans Prior to implementation of Projects

The study sought to find out whether the County has plans in place prior to implementation of construction of projects to necessitate and the findings are as shown in table 4.8.

Table 4.8 Project Plans Prior to Construction Projects

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>40</td>
<td>76.9</td>
</tr>
<tr>
<td>No</td>
<td>12</td>
<td>23.1</td>
</tr>
</tbody>
</table>

Total 52 100

From table 4.8 analysis, majority of the respondents agreed that there are prior plans in place for construction projects in the county at 76.9%, while 23.1% indicated there
are no project plans prior to implementation. This therefore shows that there is commitment in place to ensure that the projects are well laid out for completion in the County.

4.4.2 How helpful are the Plans to the projects undertaken in the county
The study sought to find the usefulness of project plans in implementation of construction projects in the County and the findings are as outlined in table 4.9.

Table 4.9 How helpful are the Plans to the project undertaken in the county

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very helpful</td>
<td>28</td>
<td>53.8</td>
</tr>
<tr>
<td>Helpful</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Do not know</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 4.9 analysis, majority of the respondents said that project plans are Very helpful at 53.8% followed by helpful at 23.1% and do not know at 23.1%.

4.4.3 Regression analysis of Project Scope
The following table depicts the regression model which highlights the relationship of the variables in the study and findings are as outlined below.

Table 4.10 Regression analysis of Project Scope

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X1 - X5

From table 4.10, the study used correlation coefficient r to check on the magnitude and the direction of the relationship between the variables, coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) and p-value were used to check on the overall significance of the model. Correlation Coefficient of 0.75 indicates a strong
positive correlation between the dependent and independent variables. On the other hand coefficient of determination R square of 0.562 shows 56.2% of the variation imply implementation of projects is influenced by helpful plans, project plans prior. The adjusted R square of 54% shows that the model is a good estimate of the relationship between the variables.

Test of Significance of R square
Probability of Error (P.E) = R/S.E
Where R=0.750, S.E = 0.475
Therefore P.E = 0.750/0.475
P.E = 1.578
R square value = 0.562
Since R square is less than 6 times the P.E, then R square is not significant. This implies, there is a chance of making type I error.

4.5 Funding Influence on Implementation of Projects in the County
The study sought to find out funding influence on construction of projects in the county, the findings are as outlined below

4.5.1 Sources of funds for Projects
The study sought to establish the sources of funds for the project and the findings are as outlined in 4.11.

<table>
<thead>
<tr>
<th>Table 4.11 Sources of funds for Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Government</td>
</tr>
<tr>
<td>Donors</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

From table 4.11, major funding comes from the government at 92.3% while the rest comes from external donors to the county at 7.7%.
4.5.2 Influence of Adequate Funding on implementation of Construction Projects
The study sought to find out the influence of funding on implementation of construction projects in the County. A hundred percent of respondents agreed that funding influences implementation of government funded construction projects in the County. This indicates that without funding, the projects will not be implemented.

4.5.3 Methods of Funding
The study sought to find out the magnitude of project funding levels within the implementation period and the findings are as outlined in table 4.12.

Table 4.12 Methods of Funding

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phased Funding</td>
<td>36</td>
<td>69.2</td>
</tr>
<tr>
<td>Intermittent Funding</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>Wholesome Funding</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 4.12, the study looked at the various funding methods in the county. The study found that the projects are predominantly funded in a phased method at 61.5 %, followed by intermittent method at 23.1 % and lastly wholesome funding method at 15.4%.
4.5.4 Allocation of Funds
The study sought to find out how the funds are allocated for implementation of the construction projects in the County

Table 4.13 Allocation of Funds

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient Funds</td>
<td>40</td>
<td>76.9</td>
<td>76.9</td>
</tr>
<tr>
<td>Insufficient Funds</td>
<td>12</td>
<td>23.1</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The study found that the projects are usually allocated sufficient funds at 76.9%, while those that are allocated insufficient funds are minimal at 23.1%.

4.5.5 Misappropriation of project funds
The study sought to find out how misappropriation of funds influences implementation of the construction projects in the County. The findings are as outlined in table 4.14.

Table 4.14 Misappropriation of Project Funds

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Great</td>
<td>20</td>
<td>38.5</td>
<td>38.5</td>
</tr>
<tr>
<td>Great</td>
<td>20</td>
<td>38.5</td>
<td>77.0</td>
</tr>
<tr>
<td>Minor</td>
<td>4</td>
<td>7.7</td>
<td>84.7</td>
</tr>
<tr>
<td>No Effect</td>
<td>4</td>
<td>7.7</td>
<td>92.4</td>
</tr>
<tr>
<td>Not Sure</td>
<td>4</td>
<td>7.7</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

From the findings as illustrated in table 4.14 of the study, to a very great/great extent misappropriation of funds influence completion of projects at 38.5% while minor/no effect/not sure at 7.7%.
4.5.6 Regression analysis on Funding influence on Implementation of Projects

The following table 4.16 depicts the regression model which highlights the relationship of the variables in the study and findings are as outlined table 4.15.

Table 4.15 Regression analysis on Funding Influence on Implementation of Projects

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X1 – X5

Table 4.15, the study used correlation coefficient \( r \) to check on the magnitude and the direction of the relationship between the variables, coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) and p-value were used to check on the overall significance of the model. Correlation Coefficient of \( 0.968 \) indicates a very strong positive correlation between the dependent and independent variables. On the other hand coefficient determination R square of \( 0.937 \) shows that \( 93.7\% \) of the variation of implementation of projects is due to adequate funding. The adjusted R square of \( 93.3\% \) shows that the model is a good estimate of the relationship between the variables.

Test of Significance of R square.

Probability of Error (P.E) = \( R/S.E \)

Where \( R=0.968 \), \( S.E = 0.094 \)

Therefore \( P.E = 0.968/0.094 \)

\( P.E = 10.297 \)

R square value = \( 0.937 \)

Since R square is less than \( 6 \) times the P.E, then R square is not significant. This implies, there is a chance of making type I error.
4.6 Extent of Socio – Economic Factors
The study in this section was to find out influence of socio-economic factors in implementation of funded projects in the county and the findings are as outlined in table 4.16.

4.6.1 Influence of Qualified Personnel on Implementation of Construction Projects
The study sought to find out how qualified personnel influences implementation of construction projects and the findings are as follows.

Table 4.16 Influence of qualified personnel on Implementation of projects

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great extent</td>
<td>40</td>
<td>76.9</td>
</tr>
<tr>
<td>Some Extent</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>Never Involved</td>
<td>4</td>
<td>7.7</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

As at table 4.16, to a great extent qualified personnel influence implementation of projects at 76.9% followed by some extent at 15.4% and lastly at never involved at 7.7%.

4.6.2 Extent of Cultural Influence on Implementation of Projects in the County.
The study sought to examine the extent of cultural influence on implementation of projects in the County and recorded findings in the table 4.17

Table 4.17 Extent of Cultural Influence on Implementation of Projects

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Extent</td>
<td>44</td>
<td>84.6</td>
</tr>
<tr>
<td>Some Extent</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>
From table 4.17, culture influences implementation of construction projects to a great extent at 84.6% while to some extent at 15.4%. This is a clear indication that cultural practices play a significant role in implementation projects in the county.

4.6.3 Community Involvement and Implementation of Projects
The study sought to find out how lack of community involvement affects implementation of government projects in Lamu County, the findings are as outlined in the table 4.18

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Extent</td>
<td>40</td>
<td>76.9</td>
</tr>
<tr>
<td>Some Extent</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 4.18 shows, lack of community involvement affects implementation of projects to a great extent at 76.9% followed by 23.1% in the county; this clearly indicates that community involvement plays a significant role in implementation of projects in the County.

4.6.4 Regression Analysis on Socio-economic Factors Influence on Implementation of Projects
The following table 4.19 depicts the regression model which highlights the relationship of the variables in the study and findings are as outlined.

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>a. Predictors: (Constant), X1 - X5</td>
</tr>
</tbody>
</table>

37
In table 4.19, the study computed correlation coefficient $r$ to check on the magnitude and the direction of the relationship between the variables, coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) and $p$-value were used to check on the overall significance of the model. Correlation Coefficient of 0.496 indicates a positive correlation between the dependent and independent variables. On the other hand, coefficient of determination $R^2$ of 0.24 shows that 24% of the variation of implementation of projects is due to lack of community involvement, culture influence and qualified personnel. The adjusted $R^2$ of 19.9% shows that the model is not a good estimate of the relationship between the variables.

Test of Significance of $R^2$
Probability of Error (P.E) = $R$/S.E
Where $R=0.496$, S.E = 0.326
Therefore P.E = 0.496/0.326
P.E = 1.521
$R$ square value = 0.246
Since $R$ square is less than 6 times the P.E, then $R$ square is not significant. This implies, there is a chance of making type I error.

4.7 Procurement Procedures in the County
This study sought to examine how procurement procedures affect Implementation of government funded construction projects in the county.
4.7.1 Tender Systems

The study sought to find out whether the tender systems affect implementation of funded projects in the county the findings are as outlined in table 4.20.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a very large extent</td>
<td>20</td>
<td>38.5</td>
</tr>
<tr>
<td>To a large extent</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>7.7</td>
</tr>
<tr>
<td>To a small extent</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>To a very small extent</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 4.20 analysis, tender systems affect implementation of projects to a very large extent at 38.5%, followed by large extent 23.1%, a small extent 15.4%, a very small extent and neutral at 7.7%.

4.7.2 Procurement Process in the County

The study sought to examine how procurement process affect the implementation of government funded construction projects in the county and the findings are as outlined in table 4.21.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement Policy</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Procurement Committees</td>
<td>32</td>
<td>61.5</td>
</tr>
<tr>
<td>Procurement responsibility</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

The findings in table 4.21 shows, procurement committees form the major part of the process that has the most influence on implementation of projects at 61.5%, followed
by procurement policy at 23.1% and Procurement responsibilities at 15.4% respectively. This situation is attributed to the fact that procurement committees allocate projects to contractors based on a different criteria other than based on the official procurement regulations. This gives room for unethical practices in procurement such as favouritism and bribery, leading to compromising project quality and completion. Secondly the policy on procurement to pay upon implementation of projects sometimes leads to project delays which maybe as a result of contractor’s financial difficulties and this was found to have a significant impact on implementation of projects. Additionally, procurement department was found to have the least significant influence on implementation of projects.

4.7.3 Tender Systems used in the County
The study sought to find out types of tenders that are used in the county for projects and the findings are as outlined.

<table>
<thead>
<tr>
<th>Table 4.22 Tender Systems used in the County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>Selective Tender</td>
</tr>
<tr>
<td>Open Tender</td>
</tr>
<tr>
<td>Limited tender</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

From table 4.22, selective tender system is the one which is mostly used at 38.5% followed by open tender 30.8% and lastly limited tender at 30.8% in ensuring projects are implemented in the county. This situation was attributed to the fact that most government officials prefer working with contractors who they have worked with previously since they are considered to have accumulated a wealth of experience from previous works. Moreover, a significant number of projects must be subjected to open and limited tender since they demand strict application of those methods to instil values of transparent procurement and fair competition.
4.8 Influence of Governance on Implementation of Projects
The findings sought to find out the influence and processes of governance on the implementation of the construction projects in the County and the findings are as outlined in table 4.23

Table 4.23 Influence of Governance on Implementation of Projects

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a very large extent</td>
<td>20</td>
<td>38.5</td>
</tr>
<tr>
<td>To a large extent</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>To a small extent</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>To a very small extent</td>
<td>4</td>
<td>7.7</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

From table 4.23 analysis, good governance affects implementation of projects to a very large extent at 38.5%, followed by a large extent 23.1%, neutral and a small extent 15.4% and lastly to a very small extent at 7.7%. This situation is informed by the fact that when projects are implemented in an open manner there is improved accountability which facilitates implementation.

4.8.1 Stakeholder Involvement in Implementation of Projects
The study wanted to find out whether other stakeholders are involved in implementation of construction projects in the County. Project’s success depends on its ability formulate support and management of key stakeholders. Satisfied stakeholders improve the progress and relevance of the project and contribute to its success; the findings are as outlined in table 4.24.
Table 4.24 Stakeholder Involvement in Implementation of Projects

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a very large extent</td>
<td>20</td>
<td>38.5</td>
</tr>
<tr>
<td>To a large extent</td>
<td>12</td>
<td>23.1</td>
</tr>
<tr>
<td>Neutral</td>
<td>4</td>
<td>7.7</td>
</tr>
<tr>
<td>To a small extent</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>To a very small extent</td>
<td>8</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

Findings in table 4.24 indicates, stakeholders are involved in the construction projects in the County to a very large extent 38.5%, large extent 23.1%, small and very small extent 15.4% and lastly neutral 7.7% in that order. Despite the fact that other stakeholders are involved in implementation of construction projects, project decisions are made at the county government offices and these decisions are the once responsible for successful project implementation. Moreover, most of the decisions are influenced by the politics of the time, which may not be in favour of project implementation.

4.9 Regression analysis on procurement process and governance.
The following table 4.25 depicts the regression model which highlights the relationship of the variables in the study and findings are as summarized.

Table 4.25 Regression analysis on procurement process and governance

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>a. Predictors: (Constant), X1 – X6</td>
</tr>
</tbody>
</table>

Table 4.25, the study computed correlation coefficient r to check on the magnitude and the direction of the relationship between the variables, coefficient of determination (the percentage variation in the dependent variable being explained by
the changes in the independent variables) and p-value were used to check on the overall significance of the model. Correlation Coefficient of 0.557 indicates a positive correlation between the dependent and independent variables. On the other hand coefficient of determination R square of 0.31 shows that 31% of the variation of implementation of projects is due to procurement process and governance. The adjusted R square of 28.2% shows that the model is not a good estimate of the relationship between the variables.

Test of Significance of R Square
Probability of Error (P.E) = R/S.E
Where R=0.557, S.E = 0.309
Therefore P.E = 0.557/0.309
P.E = 1.8
R square value = 0.310
Since R square is less than 6 times the P.E; then R square is not significant. This implies, there is a chance of making type I error.

Table 4.25, the study computed correlation coefficient r to check on the magnitude and the direction of the relationship between the variables, coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables) and p-value were used to check on the overall significance of the model. Correlation Coefficient of 0.557 indicates a positive correlation between the dependent and independent variables. On the other hand coefficient of determination R square of 0.31 shows that 31% of the variation of implementation of projects is due to procurement process and governance. The adjusted R square of 28.2% shows that the model is not a good estimate of the relationship between the variables.
4.10: Overall Model of Variables

The following table 4.26 depicts the regression model which highlights the relationship of the variables in the study and findings are as outlined.

Table 4.26: Overall Model of Variables

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.917</td>
<td>0.840</td>
<td>0.823</td>
<td>0.067811</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X1 – X6

From table 4.26, the study used correlation coefficient r to check on the magnitude and the direction of the relationship between the variables, coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables); and p-value were used to check on the overall significance of the model. Correlation Coefficient r of 0.917 indicates a strong positive correlation between the dependent and independent variables. On the other hand coefficient of determination R square of 0.84 shows that 84% of the variation of implementation of projects is influenced by governance, funding, project scope and procurement process. The adjusted R square of 82.3% shows that the model is a good estimate of the relationship between the variables.

Test of Significance of R Square

Probability of Error (P.E) = R/S.E

Where R=0.917, S.E = 0.067811

Therefore P.E = 0.917/0.067811

P.E = 13.5

R square value = 0.84

Since R square is less than 6 times the P.E, then R square is not significant. This implies, there is a chance of making type I error.
4.11 Coefficient Determination of Variables

This study sought to determine overall coefficient determination of the variables, findings are as outlined in table 4.27

Table 4.27: Coefficient Determination of Variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Un-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.653</td>
<td>.101</td>
<td>6.470</td>
<td>.000</td>
</tr>
<tr>
<td>X1</td>
<td>.061</td>
<td>.057</td>
<td>1.084</td>
<td>.284</td>
</tr>
<tr>
<td>X2</td>
<td>.302</td>
<td>.030</td>
<td>1.082</td>
<td>.000</td>
</tr>
<tr>
<td>X3</td>
<td>.113</td>
<td>.040</td>
<td>.190</td>
<td>.007</td>
</tr>
<tr>
<td>X4</td>
<td>-.140</td>
<td>.066</td>
<td>-.322</td>
<td>.040</td>
</tr>
<tr>
<td>X5</td>
<td>-.003</td>
<td>.039</td>
<td>-.011</td>
<td>.933</td>
</tr>
</tbody>
</table>

Note: Dependent variable – Implementation; X1 = Project Scope; X2 = Funding; X3 = Socio – Economic factors; X4 = Procurement Process; X5 = Governance. The resultant regression model is as follows:

\[ Y = .653 + 0.061X1 + 0.302X2 + 0.113X3 - 0.140X4 - 0.003X5 \]

Based on the analysis of variables in table 4.10, a positive change in funding has the largest positive effect in implementation of projects by 0.302. Similarly, a positive change in project plans will positively impact on project implementation by 0.061. Additionally, a positive change in socio-economic factors significantly leads to an improvement of implementation of projects by 0.113. On the other hand, non-adherence of procurement procedures leads to negative changes in implementation of
projects by -0.140 while poor governance causes negative changes to project implementation by -0.003.
CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction
This chapter presents the summary of the study findings, discussions, recommendations and conclusion of the research. The chapter also contains suggestions of related studies that may be carried out in the future.

5.2 Summary of Findings
The purpose of this study was to examine determinants of implementation of government funded construction projects in Lamu County from the analysis and review of research data through questionnaires.

From the analysis 76.9% of respondents indicated that the county has project plans prior to construction. 23.1% suggests there are no plans in place. This therefore shows that there is commitment in place to ensure that projects are well laid out for implementation in the county. 53.8% agreed that the plans are very helpful, 23.1% helpful and 23.1% do not know. The regression analysis indicates a 0.75 strong positive correlation coefficient between the variables.

Government is the major sponsor of the projects at 92.3% while the rest comes from external donors, this funding is usually given in phases at 69.2% followed by intermittent and wholesome funding at 15.4% and the funds provided to a large extent at 76.9% sufficient while the regression analysis there is a strong positive correlation coefficient at 0.094.

On the issue of socio-economic factors the study analyzed how qualified personnel, culture and lack of community involvement in implementation of projects. Qualified personnel at 76.9% to a great extent influence implementation of projects in the county, while at 84.6% great extent culture practices play a role in implementation of projects in the county and lastly at 76.9% to a great extent lack of community involvement affect implementation of projects in the county. The regression analysis correlation coefficient was at 0.326 indicating a positive correlation of the variables in the study.
The study sought to find out what tender systems are used and their influence on implementation of projects in the county, influence of procurement processes and procurement processes used. The tender systems used in the county were found to be selective tenders at 38.5%, open tenders and limited tenders tying at 30.8% respectively, while they affect to a very great extent at 38.5%. The procurement processes that affect implementation of projects are procurement policy at 23.1%, procurement committees at 61.5% and procurement responsibility at 15.4% Governance to a very large extent at 38.5% affects implementation of projects in the County while stakeholders involvement affect at 38.5%. The regression analysis correlation coefficient indicates a 0.309 positive correlation between the dependent and independent variables.

The test of significance of coefficient of determination indicated that R square is not significant in all variables in the model.

5.3 Discussion of Findings
The study examined the determinants of implementation of government sponsored construction projects and discusses as follows.

The findings indicated that project scope plans prior to construction in the county is a major element in determining implementation of construction projects. This was indicated at 76.9% yes from the respondents. Most respondents also indicated that helpful plans are essential to implementation of projects in the County. It is worth noting that project scope is a part of project planning that involves determining and documenting a list of specific project goals, deliverables, tasks and deadlines. This is realised by carrying out comprehensive feasibility studies. Inadequate feasibility studies may lead to poor scoping hence failure to capture critical elements in a project scope. This will lead to cost and schedule overruns at implementation stage and ultimately lead to stall. To get out of the crisis, managers are forced may request for additional funding or make adjustments to designs so that they can implement cheaper designs, leading to compromising on quality of projects. These findings agree with a number of scholars, such as Frank, (2010) who identifies under estimation of the costs of projects, under estimation of the complexity of projects as delay factors in projects. The findings also agree with Sweis (2008) who identified poor planning and scheduling as the most critical delay causes of construction projects in Jordan. In
addition, planning and scheduling problems were also perceived as an important source of construction delay in Thailand, where project plans were not in sufficient detail and regularly updated (Ogunlana, Promkuntong, 1996).

One of the key rudiments in project implementation is the availability of resources that are required. This means allocating adequate resources for the project to be implemented minimizes the possibility of project failure. The findings indicated that government is a major contributor to funding of projects in the County at 92.3% and the level of funds provided the highest influence on implementation of the projects, meaning if projects are adequately funded, implementation rate in improved. Whereas sufficient funds may be provided to implement projects, funding methods were also found to affect project implementation. In this case, the predominant phased funding approach used to fund government projects in Lamu County negatively impacted on project implementation. In other words, by the time the next funds are released for a project, other variables would have come in that potentially interfere with budgets and schedules leading to cost overruns and thus delays. Other methods of funding like intermittent release of funds leads to uncertainties on the side of contractors who are not aware on when to receive their next pay and this causes them not to commit more funds for to complete projects leading to project delays. These findings agree with Zagorsky (2007) who identified contractors’ financial difficulties as major causes of delays in government sponsored construction projects. Other researchers who agree with these findings include; Arshi and Sameh (2005), Majid and McCaffer (1998) who found that delay in payment from the client would eventually cause financial difficulties to the contractor. Thus, most of the construction works cannot be carried out due to these financial difficulties. Further, the findings are in agreement with Aibinu and Odeyinka (2006) who found that contractors’ financial difficulties were the most important cause of construction delay in Nigeria.

The study also focused on how community involvement, cultural factors and literacy levels, affected implementation of projects. The findings found that, qualified personnel influenced completion rate of projects in the County. Traditional practices and belief systems of the people of Lamu play a pivotal role in completion of projects in the County. It was noted too that community involvement is critical in implementation projects. Despite the fact that engaging qualified personnel, involving community and other critical stakeholders are essential to successful implementation
of projects, there is need for coordination and support from all dimensions of project for implementation success. These findings agree with Iyer & Jha, 2006 who found out that coordination among different parties involved enhances implementation of projects. This involves identification of key stakeholders in projects who also includes local community members and engaging them from initial stages of project implementation. By doing so, their values and belief systems which might be in conflict with certain projects will be overcome long before projects commence and this will facilitate implementation. The findings are also not different with Alexandrova & Ivanova (2012) who found that competence of project managers. competence of project teams are critical success factors since competence of project teams is as a result of engaging qualified personnel. The findings further are in tandem with Edwards and Hardcastle (2005) who argue that project implementation ability facilitates completion rate. Furthermore, the findings agree with Gudiene, Ramelyte and Banaitis (2013) who found that project management’s experience, project value, project manager’s experience; experience of contractor, project size, competence of project team members, clear and realistic goals, decision making effectiveness of project management, and technical capability of project management are the most important success factors for construction projects in Lithuania.

Procurement is the entire process of acquiring materials, property and services required for a particular project. The process starts with the identification of need, followed by a decision on procurement requirements. The process continues through risk assessment, identification and evaluation of alternative solutions, contract award, delivery and payment of the property or service. World Health Organisation Report (2007) explains that an effective procurement process ensures that materials are available at the right time, right quantity, for the right client, and at a reasonable price and quality. Ombaka (2009) further emphasizes that it does not merely entail the act of buying, but a wide range of business, operational, information technology, legal systems, safety and risk management, all undertaken to address an organisational needs. The ability to satisfy desired needs depends on the speed at which the good is delivered; otherwise a negative externality is created on the end users.

From the findings tender systems in the county greatly affect implementation of the projects, while procurement policies, committees and responsibilities take a larger
part to ensure that the projects are implemented as planned. In addition, methods of awarding tenders for construction projects in the area of study include; selective tender followed by open tenders and limited tenders in that order. From the findings of the study, tender committees were found to have the largest influence on procurement. This implies that the process if the tender committees adhere to procurement regulations and award tender only to qualified contractors, this will contribute to successful implementation. However, this is not the case since human beings are unpredictable. Instead, they manipulate tenders and award them to their cronies who end up affecting project implementation negatively. Those who are in charge of procurement also obtain incentives from rogue contractors and end up compromising the process and hence project delays and ultimate failure. The findings agree with Edwards and Harcastle (2005) who found that effective procurement, project implementation ability, government guarantees and favourable economic conditions are critical success factors in implementation of projects in the United Kingdom. World Bank, (2002) asserts that sound public procurement policies and practices are among the essential elements of good governance. The findings agree with Otieno (2004) who notes that irregular procurement activities in public institutions provide the biggest loophole through which public resources are misappropriated. In some cases, tenders are awarded to firms either through single sourcing or manipulation of bids; and worse still, full payments have often been made for projects that fail to take off or are abandoned half way. Still in other cases, tenders are awarded to un-competitive bidders through irregular disqualification of the lower bidders. The findings agree also with Thai (2001), who asserts that the basic principles of sound procurement practice include accountability, where effective mechanisms must be in place in order to enable procuring entities spend the limited resources carefully, knowing clearly that they are accountable to members of the public; competitive supply, which requires the procurement be carried out by competition unless there are convincing reasons for single sourcing; and consistency.

Project governance is important in enabling project success and should be scaled and shaped to address the level of complexity of projects. Project governance sets a firm framework which guides project success, creating transparency and confidence in decision making, clarity of roles and responsibilities and consideration of stakeholder interests. Project governance decisions should reflect the strategic reasons for the
original decisions to approve, fund and source projects. Project governance bodies and structures must recognise and manage risk in a way that is most likely to achieve the project’s desired outcomes as they mitigate the impact of project failure where necessary.

The study found out that good governance is essential in project implementation of projects in Lamu County. Good governance to a large extent influence implementation of government construction projects. This implies, if there is application of right project teams and skills, well-defined deliverables, where tasks are clearly assigned to the right people within the right framework, project implementation will be a huge success. Conversely, poor governance from the side of project managers will lead to engaging less qualified project teams, imprudent use of resources and hence compromise on project implementation. These findings agree with Ondari (2013) who considers management support and designs specifications, contractors’ capacity and supervision capacity as influencers of successful implementation of projects. The findings further tallies with Klakegg, Williams et al. (2007) who observed that without good governance, even well-managed projects have ended up in failure. The study too is amenable with Garland (2009) who identified project governance as a critical factor for success in project delivery.

From the study, the changes in the dependent variable were explained by changes in the independent variables as discussed. However, test of significance of coefficient of determination (R Square) found that R square was insignificant. This implies that the changes in the dependent variable can not only be explained by the discussed variables under this model but also other variables outside of this model such as ethics, feasibility study, supervision among others.

5.4 Conclusion
With reference to the study findings obtained under the analysis of the collected data, the researcher makes conclusions with respect to each research question. From the above findings it was concluded that project scope determines the implementation of government funded projects in the County and that plans are usually put in place to ensure project success. Socio-economic factors such as culture, qualified personnel and community involvement to a great extent influence project implementation.
The study acknowledges the importance of compliance to public procurement procedures and regulations. However, a lot needs to be done to promote ethical conduct, knowledge of employees on procurement regulations and training because failure to comply with the regulations can lead to major losses of government funds. The contractors for construction projects should be subjected to fair competition to promote fairness and equity. And finally promotion of good governance by embracing best practices of transparency, stakeholder involvement will greatly contribute to successful implementation of construction projects in the County.

5.5 Recommendations

Based on the findings of the study, the researcher recommends that:

The county government should ensure that adequate funds are allocated to projects in the county, since this is a major determinant to implementation of projects. The researcher also recommends that the county should have plans in place from initiation to implementation to mitigate wastage, time management as well as ensure that all the processes to decommissioning the projects are well laid out and followed.

The researcher also recommends that the issue of socio-economic factors is key hence culture, community involvement and qualification of personnel is very helpful as discussed to ensuring that the projects are completed.

The researcher also recommends that the county should have well laid out procurement processes to ensure that the projects are completed in the County and transparency in governance is key to project success.

5.6 Suggestions for Further Study

This study could be carried out in other counties in the Country.

The researcher suggests a study on determinants of construction project failure in Lamu County.

A study can be carried out to determine the influence of poor infrastructure on construction projects in the County.
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Mono, O. (2013). *Determinants of successful delivery of housing construction projects in the*...


Republic of Kenya, (2007), The level of employment and growth in the building and construction sector can be affected by failure to allocate resources effectively to capital projects in the sector


Appendix 1: Research Questionnaire

Section A: Respondents' Profile

1. Kindly indicate your gender:
   - Female [ ]
   - Male [ ]

2. Respondents' Position:
   - County Representative [ ]
   - Project Manager/H.o.D [ ]
   - Contractor [ ]
   - Consultant [ ]

3. Which one best describes your age bracket?
   - 20 – 29 years [ ]
   - 30 – 39 years [ ]
   - 40 – 49 years [ ]
   - Over 50 years [ ]

4. Experience in the Construction of Projects
   - Between 6 months to 1 years [ ]
   - Between 1-3 years [ ]
   - Between 3-5 years [ ]
   - Above 5 years [ ]

5. Indicate the highest level of your education?
   - Basic Education (Pry & Sec) [ ]
   - Tertiary [ ]
   - Undergraduate [ ]
SECTION B: Lack of Project Scope plans Influence

6. Do you normally have project plans prior to construction of projects in your County?
   Yes [ ]
   No [ ]

7. How helpful are the plans to the project(s) that is/are to be undertaken in the County?
   Very helpful [ ]
   Helpful [ ]
   Do not know [ ]
   Not helpful [ ]
   Not very helpful [ ]

SECTION C: Influence of Funding

8. What are the sources of funds for your county projects?
   Through Donors [ ]
   Through Government [ ]

9. Does funding influence implementation of construction projects in Lamu County?
   Yes [ ]
   No [ ]

10. Describe the magnitude of project funding levels in the construction projects you have been involved in.
    Phased funding [ ]
    Wholesome funding [ ]
    Intermittent Funding [ ]
11. Indicate the level of extent of influence of funding on implementation of construction projects in the County. React on the items provided by using the scale given. Please tick (✓) appropriately.

5= Very Great
4= Great
3= Minor
2= No effect
1= Not Sure

Statements

Adequate funding allocation enhances implementation of construction

Misappropriations of project funds lead to incompletion of projects.

SECTION D: Extent of Socio-Economic Factors

13. Do you think that qualified personnel influence implementation of projects

Great extent [ ]
Some Extent [ ]
Never Involved [ ]

14. Does Culture influence Implementation of Projects

Great extent [ ]
Some Extent [ ]

15. How does lack community involvement affect implementation of government projects in Lamu County?

Great extent [ ]
Some Extent [ ]

SECTION E: Procurement Procedures used in implementation of Projects

16. What are the tender types used in the county (tick as appropriate)

Selective Tender [ ]
Open Tender [ ]
Limited tender [ ]
17 What is the influence of tender systems used in implementation of construction projects in the county? React on the items provided by using the scale given. Please tick (✓) appropriately.
1=To a Very Small extent
2=To a Small Extent
3=Undecided
4=To a Large Extent
5=To a Very Large Extent

18 What are the procurement processes used in the county to ensure projects in the County are implemented

Procurement policy [ ]
Procurement committees [ ]
Procurement responsibility [ ]

SECTION F: Governance

19. To what extent does poor governance influence implementation of government projects in Lamu County? React on the items provided by using the scale given. Please tick (✓) appropriately.
1=To a Very Small extent
2=To a Small Extent
3=Undecided
4=To a Large Extent
5=To a Very Large Extent

Statements

Level of transparency in the management of construction projects in the County
Are critical stakeholders involved in implementation of construction projects

Thank You for your time and co-operation.