

**AN EVALUATION OF PRE-TENDER
DOCUMENTATION OF PUBLIC BUILDING PROJECTS
IN KENYA: A CASE STUDY OF BUILDING PROJECTS
IN THE ECONOMIC STIMULUS PROGRAMME**

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**An Evaluation of Pre-Tender Documentation of Public Building
Projects in Kenya: A Case Study of Building Projects in the
Economic Stimulus Programme**

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**A Thesis Submitted in Partial Fulfillment of the Requirements for
the Degree of Master of Construction Project Management of the
Jomo Kenyatta University of Agriculture and Technology**

2024

DECLARATION

This thesis is my original work and has not been presented for a degree in any other University

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DEDICATION

I dedicate this project to my daughters Jostine Wambui and Maryanne Wairimu. Their continuous support, patience and faith in me have enabled me to successfully finish my studies. To them I am greatly indebted.

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ACRONYMS AND ABBREVIATIONS

BoQs	Bill of Quantities
CDFC	Constituency Development Fund Committees
CPTC	Constituency Projects Tender Committee
DT	Design Team
DTE	Design Team Effectiveness
ESP	Economic Stimulus Programme
GDP	Gross Domestic Product
GoK	Government of Kenya
ICT	Information Communication Technology
Kshs	Kenya Shillings
MDG	Millennium Development Goals
MoPW	Ministry of Public Works
MoRPW	Ministry of Roads and Public Works
ODPM/ MoF	Office of the Deputy Prime Minister and Ministry of Finance
PPOA	Public Procurement Oversight Authority
SPMC	Stimulus Project Management Committee
TOR	Terms of reference
HMSO	His Majesty's Stationery Office

ABSTRACT

Construction teams play a critical role and are at the core in the process of project delivery in the construction industry. This thesis explored the Ministry of Public Works (MoPW) Construction team roles in the Economic Stimulus Programme (ESP) social infrastructure project implementation. Currently, Construction design teams' performance at the Ministry of Public Works remains inefficient contributing to poor project performance of ESP. Documentation of projects is rarely on schedule, tender process frequently flawed, and poor quality work delivered by contractors under the supervision of MoPW design team. Poor performance, process of constituting and composition of a design teams, leadership, communication, co-operation between departments/team members and the client experience are some of the contributing factors. The main objective of the study was to evaluate pre-tender documentation by MoPW construction teams, using ESP infrastructure projects as a case study. The specific objectives of the study were: (i) to describe the adequacy of the documentation done by the MoPW construction teams; (ii) to establish the effectiveness of the construction team in the pre-contract documentation process; and (iii) to formulate a framework for improving pre-tender documentation in public building projects. Data collection was done through observation, interviews and questionnaires. Additionally, various post-contract reports were reviewed to reveal the weaknesses found in the project documentation. The population of the study was 1883 projects – i.e. seven (7) ESP projects across two hundred and sixty-nine (269) districts in Kenya. The districts were grouped into 3 categories – urban districts, peri-urban district and rural districts – and a sample of 3 project types purposefully selected from each category. Therefore, data was collected from nine (9) specific projects across the country. Data analysis was done using frequencies and percentages. It was observed that pre-tender documentation in the ESPs was very inadequate. Particularly, bills of quantities and site analysis reports, which are crucial to project performance, were found to have always been missing in the ESP projects investigated. Additionally, effectiveness of the construction teams in the process of pre-tender documentation was low, and was determined by their level of consultation of the local communities before choice and design of the ESP projects. From the findings, a framework for improving pre-tender documentation was formulated, in terms of in-put factor into the documentation process and a check-list of the pre-tender document records necessary for best results. It is recommended that the government of Kenya adopts the pre-tender documentation framework developed in this study.

Key words: Documentation, design team, project performance, effective design team,

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The evaluation of pre-tender documentation in building projects has been a critical aspect of project management and construction industry research worldwide. Many researchers and industry professionals have developed checklists and guidelines to evaluate pre-tender documentation. These tools help assess the completeness, clarity, and compliance of documents. Some studies rely on expert opinions and peer reviews to evaluate pre-tender documentation. Experts in construction management and related fields assess the quality of documents based on their professional judgment and experience (Lim, 1999). Researchers often conduct case studies of specific construction projects to evaluate pre-tender documentation in practice. These studies involve in-depth examination of project documents and interviews with project stakeholders to identify issues and lessons learned (Lester, 2007). Finally, Surveys and questionnaires are used to gather feedback from construction professionals, contractors, and project owners regarding their perceptions of pre-tender documentation quality.

The evaluation of pre-tender documentation in public building projects in Africa follows a similar pattern to global practices but is often influenced by regional factors and challenges. Due to varying legal frameworks in African countries, some research focuses on evaluating pre-tender documentation based on compliance with local regulations, standards, and procurement laws, (Afolabi & Oke, 2017). In some African countries, there is an emphasis on capacity building and training for public officials involved in procurement and documentation preparation to ensure the quality of pre-tender documentation. Researchers often conduct case studies within African countries to assess pre-tender documentation practices. These studies examine the challenges faced and lessons learned in specific projects (Oke, 2014). In addition, researchers in Africa may assess pre-tender documentation against international best practices, recognizing the importance of aligning with global standards to attract investment and ensure transparency.

In Kenya, to jumpstart the economy after the slump instigated by the year 2007/2008 post-election violence, the prolonged drought, a rally in oil and food prices, the GoK embarked on an Economic Stimulus Programme (ESP). According to Investopedia (2015) an economic stimulus program is a package of economic measures put together by the government to stimulate a floundering economy. The objective of a stimulus package is to reinvigorate the economy and prevent or reverse a recession by boosting employment and spending, (Adam, 2021). The theory behind the usefulness of a stimulus package is rooted in Keynesian economics, which argues that the impact of a recession can be lessened with increased government spending. According to Ministry of Finance (2008), the total budget allocated amounted to 22 Billion Kenya Shillings (260 million US\$) for the ESP which covered; core activities to the mainstay of rural and urban population, that is, expansion of irrigation based agriculture, construction of wholesale and fresh produce markets, fish ponds and *jua kali* sheds among others. Other projects include construction of infrastructures such as schools, health centres and roads, as well as tapping into the human capital resources to contribute to social welfare improvement and achievement of the Millennium Development Goals (MDGs).

Improving infrastructure is a key objective that has been adapted by several economies; to realize this a construction cycle has to be in place. Construction process is implemented in two stages; the pre contract period and post contract period which make up the cycle. Construction teams are formed to implement the two periods. For this study, construction team shall be taken to mean the stakeholders involved in construction of buildings from inception to completion of a project. The construction team thus, comprises of a client, financier, design team and production team. According to the International Institute for Sustainable Development (2015), documenting the project implementation process is an important step to ensuring the effective management and implementation of Community-Based Approach (CBA) projects going forward. The description of the project implementation processes should clearly explain the logic that links the conclusions of the analysis stage with the project objectives, expected results and activities. (IISD, 2015) further asserts that most projects won't be able to address all of the challenges, needs and priorities that arise from a holistic analysis, so there needs to be a clear rationale for the decisions

your team makes on which approaches and adaptation activities to pursue. Further, there are inevitably issues can't be addressed by the project but may have implications for its success. These issues should be documented as risks or assumptions.

Good project documentation is a prerequisite to project success. The purpose of commissioning documenting is to record the standards of performance for building systems, and to verify that what is designed and constructed meets those standards. Commissioning is a team effort to document the continuity of the project as it moves from one project phase to the next. In the Planning and Development phase of a project, planning and programming documents begin to define an owner's requirements for building performance. When the entire project delivery process is documented in a consistent manner, an historical perspective is created that explains the iterative process of determining the agreed-to project requirements at each step of the development process. Commissioning documentation becomes the road map for the success criteria to be met by facilities that are put in service. At post-occupancy, commissioning documentation becomes the benchmark to ensure that the building can be maintained, retuned, or renovated to meet future needs. It documents the Owner's Project Requirements (OPR) in the beginning of the project and records comments. Therefore, this study evaluates how project documentation influenced the implementation of ESP infrastructure projects in Kenya.

1.2 Statement of the Problem

Despite its significance, there exists a gap in our understanding of the quality and compliance of pre-tender documentation for building projects under the Economic Stimulus Programme in Kenya. There is a lack of comprehensive assessments regarding the adequacy, completeness, and clarity of pre-tender documentation for building projects within the Economic Stimulus Programme. Such deficiencies may result in misinterpretations, disputes, and project delays, (Kamau & Mulei, 2020). The Public Procurement and Asset Disposal Act of 2015, and subsequent amendments, provide a legal framework for procurement in Kenya. Ensuring that pre-tender documentation aligns with these regulations is crucial to maintain transparency and fairness. The Ministry of Public Works (MoPW), adopted a top bottom approach

where the prototype designs were done to be replicated within the country. This approach presented challenges to the set out timeline of six months for the MoPW design teams customizing drawings and BoQ where type plans were not in use.

Public building projects in Kenya play a vital role in socio-economic development, infrastructure enhancement, and job creation. However, the quality and effectiveness of pre-tender documentation for these projects, particularly within the framework of the Economic Stimulus Programme, have been a subject of concern. Pre-tender documentation encompasses project specifications, drawings, bills of quantities, and contractual agreements, serving as the foundation for procurement and project execution. Inadequate or suboptimal pre-tender documentation can lead to project delays, cost overruns, disputes, and compromised quality, ultimately undermining the program's objectives and the efficient allocation of public resources.

The Economic Stimulus Programme aims to stimulate economic growth, enhance infrastructure, and create employment opportunities. Evaluating the pre-tender documentation's role in achieving these goals is essential to determine its impact on program success. Inadequate pre-tender documentation can lead to project delays and cost overruns, ultimately affecting the efficient allocation of public funds and resources, (Karani, 2020). The perceptions of stakeholders, including contractors, government agencies, and the public, regarding the quality and effectiveness of pre-tender documentation need to be considered. Dissatisfaction among stakeholders can hinder project success and program objectives, (Mulei & Iravo, 2018). Addressing these issues is imperative for the successful execution of building projects under the Economic Stimulus Programme in Kenya and ensuring the program's contribution to national development goals.

1.3 Aim and Objective of the Study

The aim of this study was to evaluate pre-tender documentation in the ESP building projects for the purpose of improving performance of these projects, and also performance of the construction teams at MoPW which handle the projects.

The specific objectives of the study were:

- 1 To investigate the adequacy of pre-tender documentation done by the MoPW construction teams, regarding the ESP building projects.
- 2 To establish the effectiveness of construction teams in the process of pre-tender documentation in the ESP building projects.
- 3 To formulate a framework for improving pre-tender documentation in the the ESP building projects.

1.4 Research Questions:

- 1 What is the adequacy of pre-tender documentation done by the MoPW construction team?
- 2 How effective are construction teams during project pre-tender documentation processes?
- 3 What is the best project pre-tender documentation framework?

1.5 Justification and Significance of the study

Documentation of a construction project should be timely, cost effective and target oriented. Construction team have encountered challenges due to poor documentation approach undertaken which through this research will expand knowledge about the variables that need to be met during project documentation. The findings of this study laid a basis for formulation of a comprehensive project pre-tender documentation framework for effective project implementation.

It is important to learn all areas in which change can be effected in order to improve performance in any system. Bad non-performing systems can be made good, good performing ones can be made better. Based on this, there is need to understand why the MoPW cannot learn from their previous projects and build on them. The issue is not unavailability of projects: they do many. But what can their design teams improve on their performance of the 1970s? it is possible that some of the challenges faced today have been faced before and even surmounted. But can the same measures be applied today? This study laid bare the importance and need of documentation in construction design teams.

1.6 Scope of the Study

MoPW construction team roles include documentation, overseeing tender process and the supervision of a project. The research focused on the documentation which results in production of drawings, schedules and specification and bills of quantities, as well as building a body of knowledge for future such projects.

Spatial scope of this research study was limited to ESP projects in Thika East, Transmara East and Kasarani districts. The justification for this scope is that it provides an analysis of the documentation in an urban area (Kasarani), a peri-urban area (Thika East and a rural area (Transmara).

1.7 Limitations of the Study

The study focused on social infrastructure such as schools, health centres, *jua kali* sheds and construction of wholesale and fresh produce markets rather than the entire ESP variety of projects. Therefore the findings of the study cannot be generalized for the different varieties of ESP projects.

Poor network connectivity was also a big challenge. Most of the infratructural projects were located far away and would be unreachable for days. The researcher therefore made prior arrangements and booked appointments where necessary to avoid botched out meetings with the respondents.

1.8 Definition of Terms

The following terms shall be used in the study

as built drawings Drawings that show the existing conditions as they are, or "as-is". These are the actual existing conditions as opposed to designs or proposed conditions, which are more common for the content of drawings.

Client Person who uses the services of a professional

Construction cycle	Series of occurrence that are repeated in implementation of a design project
Bills of quantities	a document used in tendering in the construction industry in which materials, parts, and labor (and their costs) are itemized. It also (ideally) details the terms and conditions of the construction or repair contract and itemises all work to enable a contractor to price the work for which he or she is bidding.
Design team	A team of consultants as described above working on a particular project. It will usually be headed by a lead consultant, usually the architect.
Documentation	Process of preparing drawings, schedule, specification and bills of quantities for the purposes of implementation of a building project.
Financier	Source of funds to undertake a project, whom can still be the client.
Jua kali sheds	a simple single-storey structure that is used to protect artisans while working. The jua kali sheds are also used for storage of their ware.
Production team	Implementers of the design teams ideas.
Project	a limited and specific volume of work described by an estimate of costs and, when appropriate, by drawings and bills of quantities or specifications.
Working drawings	a type of technical drawing, produced by the design team which is part of the documentation needed to build an engineering or architectural project.

1.9 Structure of the study

Chapter one is an introduction audit. It encompasses background of the problem, problem statement, objectives, research questions, justification, assumptions and limitation of the study.

Chapter two dwells on the literature reviewed and it introduces the conceptual background of the research problem. Generally, the review focused on factors that explain the role of design team in ESP projects. The chapter concluded by identifying design team roles to be analysed in the study area.

Chapter three presents methodology indicating the methods applied in carrying out the research study. It is organized as follows; research design, sampling design, research tools, data collection, data analysis and presentation. The analysis involved collecting the relevant supporting documents and reviewing them against the primary data. Previous research studies and other secondary data were used to evaluate and compare the existing scenario.

Chapter four is on data analysis and presentation. This chapter interprets and explains the findings with regard to the study objectives.

Finally, chapter five presents the conclusions and recommendations. Areas that need further research are suggested.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section contains relevant literature on ESP and the factors influencing implementation of ESP projects, theoretical framework, conceptual framework, research gaps and chapter summary. The literature reviewed is on ESP, Project documentation, what entails project pre-tender documentation and what entails project documentation framework. The purpose of the literature review is to ensure a thorough understanding of the topic, identify potential areas for research, similar work done within the area, compare previous findings, critique existing findings and suggest further studies.

2.2 Brief Overview of Project Documentation

Traditionally the construction industry uses many different documents for communication among project participants to ensure value and highest quality for money, (William, 2002). Documents are interfaces used to access and navigate through collections of information and to serve particular business purposes by construction professionals, (Zhu & Issa, 2001). Documents provide a way to show a viewer attributes of the information objects and relationships. Documents are processed through established design processes by a design team. The design team comprising of architects, engineers and other consultants produce documents for the owner. In the government implementation of ESP to revive the economy paper-based documents were used as reservoirs for the entire project information.

In the government implementation of ESP to revive the economy paper-based documents were used as reservoirs for the entire project information. The three important design criteria for any ESP as should be timely not be enacted prematurely delayed too long or consist of program that would take too long to be implemented to lessen any economic downturn, should be temporary designed to raise output in the short run, but should not increase the budget deficit in the long run. If an ESP is not

temporary and continues after the economy recovers it could lead to higher inflation and further should be targeted to areas that are most vulnerable in a weakening economy and should generate the largest possible increase in short run GDP.

Documents required before implementation of a project provide a backbone for a successful building project. The specifications (or project manual) include the bidding requirements, contract conditions and the specifications that define the qualitative requirements for products, materials and workmanship.

A construction team member has to adapt a logical design process to come up with a design solution presented through documents for design problems, (Markus, Whyman, Morgan, & Whitton, 1972). Design is an iterative process which may be analysed into a linear sequence of events each with its own recognisable milestones. William (1961), identified the creative process referred to as synectics. In synectics the imagination is stimulated in a meaningful way by a series of creative analogies – personal, symbolic and direct in which the design problem is compared with phenomena from other disciplines, (Gordon, 1961). The process adapted is fundamental to the success of systematic working of the construction team.

Approaches for modelling design processes can be categorized by the manner in which design is viewed as a process such as series of activities, decisions, evolving functions, sets of transformations; search processes, activity based view of design processes is applicable when the precedence of activities is known by a design team and decision-based view of design processes view design as a process of modelling an on-going design process converting information into knowledge about the product and decisions are the key markers used to determine the progress of design, (Fathianathan, 2007). This study will focus on both activities and decisions of the design team that was involved in ESP projects.

What is important for the design process to be effective is to create conditions conducive to the designers' ambitions and working methods and contribute to the design activity, no matter what their profession. Design process strategies can affect not only the efficiency with which resources for designing are used, but also the nature of final design as well'. Appropriately structured design processes not only can

improve the performance of a single product but also the evolution of the entire product line. In working with companies from several industrial sectors, it has been found that making decisions on how the design process should proceed is not trivial.

Input factors are all factors that can be manipulated in order to change processes (design) and outcomes, (Cohen, 1997). According to McGrath (1964) input factors can be at the level of the individual (professional consultant), the group (design team) or the environment (McGrath, 1964). Gladstein (1984) only distinguishes between factors on the group level and factors on the organizational level, (Gladstein, 1984), whereas Cohen (2007) propose environmental, organizational, group, and task factors. Individual factors are for example skills of the individual group members, as well as attitudes (e.g. preference towards teamwork) and personality characteristics (e.g. extraversion, conscientiousness). Group size, group structure, and the level of “cohesiveness” or group composition, and tenure are considered as input factors on the group level.

2.3 Pre -Tender Documentation: Concepts and Importance

Pre-tender documentation, also known as pre-contract documentation, plays a pivotal role in the construction and procurement process. It refers to the set of documents and information that is prepared and collected by the client or project owner before the tendering or bidding process for a construction project begins. These documents are essential for potential bidders to understand the project's requirements, scope, and expectations, (FIDIC (International Federation of Consulting Engineers), 2017). The main concepts of pre-tender documentation in the context of construction projects include:

- a) Project brief: The project brief is a fundamental component of pre-tender documentation. It outlines the client's objectives, project scope, budget, and any specific requirements. This document sets the foundation for the entire project and helps potential bidders understand the client's vision.
- b) Technical specifications: Detailed technical specifications provide information about the quality and standards expected for materials, workmanship, and

construction methods. These specifications ensure that all bidders have a common understanding of the project's technical requirements.

- c) Drawings and plans: Architectural drawings, structural plans, and engineering drawings are included in pre-tender documentation. These visual representations of the project help bidders assess the complexity and scale of the work.
- d) Contract Documents: Pre-tender documentation typically includes draft contract agreements, general conditions of contract, and any special conditions. These documents outline the legal framework within which the project will be executed.
- e) Site information: Information about the project site, including its location, access, utilities, and any potential challenges, is crucial for bidders to evaluate the feasibility of the project.
- f) Bill of Quantities: A detailed bill of quantities lists all the materials, labor, and services required for the project. It allows bidders to estimate their costs accurately, (RICS (Royal Institution of Chartered Surveyors), 2014).

Overall, comprehensive pre-tender documentation offers several advantages which include:

- a) Clarity and understanding: Well-prepared pre-tender documentation ensures that all potential bidders have a clear understanding of the project's scope, requirements, and objectives. This clarity reduces the likelihood of misunderstandings and disputes during the project.
- b) Competitive bidding: Clear and comprehensive pre-tender documentation promotes competitive bidding. When contractors have a thorough understanding of the project, they can submit competitive and realistic bids, which benefits the client.
- c) Risk Management: By providing information about site conditions, technical specifications, and project constraints, pre-tender documentation helps bidders assess and manage risks associated with the project. This leads to better risk mitigation strategies.

- d) **Legal Framework:** The inclusion of contract documents in pre-tender documentation ensures that all bidders are aware of the contractual terms and conditions. This transparency promotes fairness and legal compliance in the bidding process.
- e) **Cost Estimation:** The bill of quantities and other cost-related information in pre-tender documentation allows bidders to prepare accurate cost estimates, helping them determine whether the project aligns with their financial capabilities.
- f) **Quality assurance:** Technical specifications and standards outlined in pre-tender documentation contribute to the quality assurance of the construction project. Bidders must adhere to these specifications to meet the client's expectations.
- g) **Efficient Tender Evaluation:** When pre-tender documentation is well-structured and comprehensive, the tender evaluation process becomes more efficient. Evaluators can compare bids based on a standardized set of criteria, (Smith, 2004).

In conclusion, pre-tender documentation is a critical element in the construction and procurement process. It ensures transparency, clarity, and fairness in the bidding process, ultimately leading to successful project outcomes. Clients and project owners should invest time and effort in preparing comprehensive pre-tender documentation to attract competitive bids and minimize risks.

2.4 Pre-Tender Documentation in Kenya

The Ministry of Public Works in Kenya carries out pre-tender documentation for construction projects in a structured and regulated manner. The process involves several key steps to ensure transparency, fairness, and efficiency in the procurement process. While specific procedures may vary depending on the project's complexity and value, the following steps provide a general overview of how the Ministry of Public Works carries out pre-tender documentation in Kenya, (PPRA (Public Procurement Regulatory Authority), 2015), (Government of Kenya (GOK), 2020):

1. **Project identification and planning:** The process begins with the identification of a need for a construction project. The Ministry of Public Works, in collaboration with relevant government agencies and departments, identifies and plans the project based on public infrastructure needs and development priorities.
2. **Project budgeting:** A budget is allocated for the project, taking into account the estimated construction costs, project scope, and other associated expenses. Adequate funding is crucial for project execution.
3. **Project design and scope definition:** Detailed project design and scope are developed, including architectural plans, technical specifications, and engineering drawings. These documents define the project's requirements and form the basis for pre-tender documentation.
4. **Development of Pre-Tender Documentation:** The Ministry of Public Works prepares pre-tender documentation, which typically includes the following components:
 - **Project Brief:** This outlines the project's objectives, scope, budget, and any specific requirements.
 - **Technical Specifications:** Detailed technical specifications set the quality and standards expected for materials, workmanship, and construction methods.
 - **Drawings and Plans:** Architectural, structural, and engineering drawings provide visual representations of the project.
 - **Bill of Quantities:** A detailed list of materials, labor, and services required for the project.
 - **Contract Documents:** Draft contract agreements, general conditions of contract, and any special conditions that establish the legal framework for the project.
5. **Publication and Advertising:** The pre-tender documentation is published and advertised in accordance with the Public Procurement and Asset Disposal Act, 2015, and related regulations. This step ensures that potential bidders are aware of the project and can access the documentation.

6. **Pre-Bid Meetings:** The Ministry may organize pre-bid meetings to provide potential bidders with an opportunity to seek clarifications, ask questions, and gather additional information about the project. These meetings enhance transparency and help bidders prepare competitive bids.
7. **Bid Submission and Evaluation:** Bidders are required to submit their bids in accordance with the pre-tender documentation. The evaluation process assesses bids based on established criteria, ensuring that they meet the project's requirements and that the evaluation is fair and objective.
8. **Awarding of Contract:** After a thorough evaluation, the Ministry awards the contract to the successful bidder who has met all requirements and demonstrated the ability to execute the project effectively.
9. **Contract Signing and Project Execution:** The Ministry and the awarded contractor sign the contract, outlining the terms and conditions. Project execution proceeds according to the contract, with regular monitoring and reporting to ensure compliance.
10. **Post-Project Evaluation:** After project completion, the Ministry may conduct a post-project evaluation to assess the contractor's performance and the overall success of the project.

2.4.1 The Infrastructure Components of Economic Stimulus Projects

Improving infrastructure is a key objective that has been adapted by several economies; to realize this a construction cycle has to be in place. Construction process is implemented in two stages; the pre-contract period and post contract period which make up the cycle. Construction teams are formed to implement the two periods. For this study, construction team shall be taken to mean the stakeholders involved in construction of buildings from inception to completion of a project. The construction team thus, comprises of a client, financier, design team and production team.

The infrastructural component of the Economic Stimulus Programme initially comprised of 72 District Headquarters, 210 CIDCs, 210 Model Health Centres, 180 Fresh Produce Markets, 420 and 210 Model Centers of Excellence both Primary and Secondary Schools respectively giving an initial total of 1282 projects. However, the

list has increased due to diversity of needs at the local level and change of mode of development with increase in District Headquarters, CIDCs, Health Centers and Schools. The total number of projects now stands at 1450 as per the matrix below:

Table 2.1: Scope of Programme

S/No	Project	Initial Total	Present Total
1	District Headquarters	72	75
2	CIDCs	200	210
3	Health Centres	200	210
4	Fresh Food Markets	180	180
5	Model Schools of Excellence Primary	420	420
6	Model Schools of Excellence Secondary	210	355
	Grand Total	1282	1450

Source: (MoPW, 2010))

The initial budget for the infrastructural components of ESP was about **Kshs 1.6 billion** as per the breakdown shown below:

Table 2.2: Budget

S/NO	Project	No	Unit cost (Ksh)	Total cost(Ksh)	Implem. Agency
1	District Headquarters	72	30,000,000.00	2,160,000,000.00	MOPW
2	CIDCs	210	2,500,000.00	525,000,000.00	MOI
3*	Health Centres	200	20,000,000.00	4,000,000,000.00	MOH
4	Fresh Food Markets	180	10,000,000.00	1,800,000,000.00	MOLG
5	Model Schools of Excellence Primary	420	3,500,000.00	1,470,000,000.00	MOE
6	Model Schools of Excellence Secondary	200	30,000,000.00	6,000,000,000.00	MOE
	Grand Total	1280		15,955,000,000.00	

Source: MoPW (2010)

2.4.2 Regulatory Framework and Compliance

The regulatory framework and compliance for pre-tender documentation of public building projects are critical aspects of ensuring transparency, fairness, and accountability in public procurement. Governments and public authorities often establish specific laws, regulations, and guidelines to govern the preparation and

submission of pre-tender documentation. The general regulatory framework and compliance requirements for pre-tender documentation in public building projects involve, (Darabad, 2017):

- a) Statutory and legal framework: Governments and public authorities typically have legal frameworks in place that govern public procurement, including pre-tender documentation. These legal frameworks can include national procurement laws and regulations that prescribe the procedures and requirements for tendering.
- b) Public procurement guidelines: Public building projects often follow guidelines established by international organizations like the World Bank. These guidelines provide best practices for public procurement, including pre-tender documentation, to ensure fairness, transparency, and efficiency.
- c) Open and competitive bidding: The regulatory framework typically emphasizes open and competitive bidding processes. Pre-tender documentation must be designed to encourage competition and prevent favouritism.
- d) Documentation transparency: Public authorities are often required to make pre-tender documentation publicly available to ensure transparency. This allows potential bidders to access the necessary information to participate in the bidding process.
- e) Fair evaluation criteria: The regulatory framework typically mandates the establishment of clear and fair evaluation criteria within the pre-tender documentation. These criteria should be objective and related to the project's objectives and requirements.
- f) Ethical considerations: Ethical considerations, such as avoiding conflicts of interest, are often embedded in the regulatory framework. Bidders and public officials involved in the procurement process are expected to adhere to ethical standards.
- g) Compliance with environment and social standards: Pre-tender documentation may need to address environmental and social standards, especially for public building projects. Compliance with sustainability and environmental regulations is essential.

- h) Electronic procurement systems: Some regulatory frameworks encourage or mandate the use of electronic procurement systems for the submission and management of pre-tender documentation to enhance efficiency and transparency.
- i) Procurement Audits and reviews: Regular audits and reviews of procurement processes, including pre-tender documentation, are often conducted to ensure compliance with the regulatory framework.

In conclusion, the regulatory framework and compliance requirements for pre-tender documentation of public building projects are designed to uphold principles of fairness, transparency, and accountability. These requirements are essential to prevent corruption, favouritism, and inefficiencies in public procurement processes. Public authorities and project stakeholders must be well-versed in the applicable laws and regulations to ensure full compliance and successful project outcomes.

2.5 Construction Team Performance

In the construction industry context design teams typically constitute a number of individuals from different technical disciplines who come together for periods ranging from a few months to several years to undertake the design of a built facility of some kind. Each discipline will often employ a number of individuals that effectively constitute a sub team of the overall design team, which will normally be geographically distant from other discipline sub teams. As such construction design teams are regularly large and distributed in nature, each sub team being semiautonomous and self-contained in its own right.

The composition of a work team is defined by the individual characteristics of its members. Individual characteristics of team members (i.e. their personalities, demographic characteristics, attitudes and soon) serve as inputs that indirectly influence team performance through group processes (e.g. collaboration) and emergent states (e.g. team cohesion). The characteristics of team members affect the way in which a team operates and its subsequent performance.

Although construction team performance is a complicated matter adherence to scope, timely delivery of projects and effective cost in projects are measurable quantities in successful performance of a team. Time, cost and scope are however intertwined and a trade off in one of the parameters affects the quality of a project and consequently construction team performance. Emmitt (2012), highlights that design teams should aim at achieving final building within a cost on time and of the appropriate quality, (Emmitt, 2003). That is timeless project objectives as shown in diagram 2.1 below:

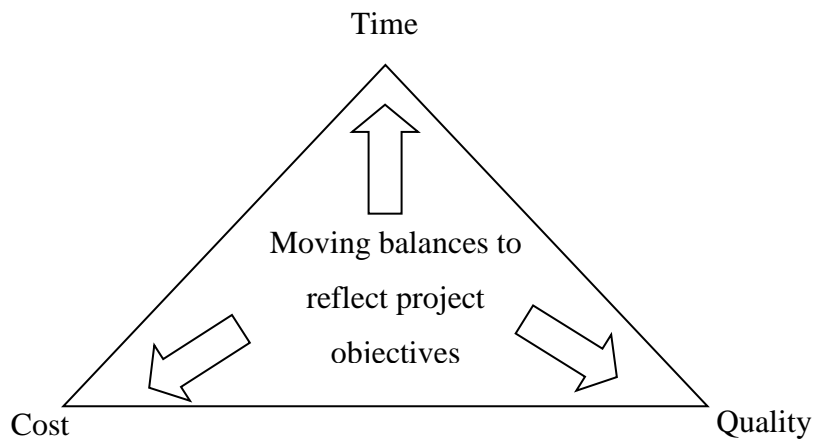


Figure 2.1: Project Objectives

Source: (Emmitt, 2003)

Overall, Inputs and team processes are crucial factors that influence team performance in various contexts, including business, sports, and research. Understanding how these elements interact and impact team performance is vital for achieving successful outcomes. Inputs influencing team performance include;

1. Team composition: The selection of team members with diverse skills, expertise, and backgrounds can positively impact team performance. A well-balanced team brings different perspectives and knowledge to the table.
2. Goals and objectives: Clearly defined goals and objectives provide teams with a sense of direction and purpose. This input helps teams understand what they need to achieve and work together towards a common target, (Locke, 2002).

3. Resources: Adequate resources, including financial, technological, and informational support, are essential for team performance. Lack of resources can hinder a team's ability to accomplish its goals.
4. Leadership: Effective team leadership plays a significant role in team performance. A strong leader can provide guidance, motivation and support to the team, (Avolio & Walumbwa, 2009).
5. Training and development: Providing team members with training and skill development opportunities enhances their capabilities and contributes to team performance. Well-prepared team members are more likely to excel.

The team processes influencing team performance include:

1. Communication: Open and effective communication is crucial for team success. Clear and frequent communication among team members ensures that everyone is on the same page.
2. Conflict resolution: The ability to manage and resolve conflicts within a team is vital. Effective conflict resolution processes can prevent disputes from undermining team performance.
3. Decision-making: The quality of decision-making processes can significantly impact team performance. Effective decision-making methods ensure that the team's choices align with their objectives.
4. Collaboration: Encouraging collaboration and teamwork promotes a positive team environment. Team members who work well together can achieve greater performance.
5. Feedback: Regular feedback mechanisms enable teams to assess their progress and make necessary adjustments. Feedback helps teams identify areas for improvement.
6. Task coordination: Effective coordination of tasks and responsibilities among team members ensures that work progresses smoothly. Poor task coordination can lead to delays and reduced performance, (Marks & Mathieu, 2001).

2.6 Significance of Construction Documents Management

Aditya & Mahatme (2017), noted that the basic goal of documents and records are to ease the human work and assist whenever needed. Some general purpose is that document/ record management should be used to maintain the productivity and speed of work, to forward the errors in the work done, to lower the monetary losses, material losses, to maintain phase wise account of work done, to replicate the reality on- off site, and about the stakeholders and to provide strong evidence and base for future planning and assist any decision making, (Aditya & Mahatme, 2017).

The Australian Construction Industry Forum (ACIF, 2002), identified unknown design problems, constructability problems, statutory compliance problems and time availability problems are key areas of concern in project documentation as that leads to project design and construction problems, (Australian Construction Industry Forum (ACIF), 2015). Below are the protocols and principles for construction project documentation.

Table 2.3: Protocols and Principles of Project Documentation

Protocols	Principles
Protocol 1 Client Brief & Project Establishment	<ul style="list-style-type: none"> • Establishment of well-defined client brief comprising key drivers and parameters such as: budgets, functions, quality, sustainability, urban issues and commercial returns. • Better articulation of requirements by the client equates to better consultant response. • Client brief to include any requirements for document checking and coordination services (which will be reflected in consultants fees offered). • Client may require additional advice in brief preparation, budgeting and programming, and engage specialist expertise, as in the case of highly complex projects.
Protocol 2 – Consultant Selection	<ul style="list-style-type: none"> • Client recognition that consultant fees would be commensurate with the effort required and selection based on non-price and price criteria to establish value. • Clients to inform themselves of reasonable benchmark fees required for the services being requested. • Ensure selection assessment practices are ethical and transparent. • Client recognition that fees and premature commitment of work will increase the probability of inadequate documentation and claims.

Protocols	Principles
Protocol 3 – Team Formation and Project Integration	<ul style="list-style-type: none"> • At the commencement of the project, client and project team should ensure that roles, responsibilities and obligations of all parties are clearly understood. • Assumptions underpinning the project and key drivers for the project should be tested. • Establish and agree a design and documentation review process including review points and agree milestones for client and project team sign-off. • Develop a quality plan including procedures for communication, document control and coordination. • Client may create obligations on consultants to report on risk and options for managing risk. • Obtain approvals and sign off progressively throughout the project. • Encourage project teams and clients to utilise tools to assist e.g. value management. • Encourage establishment of integrated teams and articulate procedures for problem resolution. • Encourage design and documentation teams to bring construction expertise to the team to provide greater confidence e.g. early use of contractors on build-ability. Recognise that different parties bring different skills.
Protocol 4 – Quality Management Incorporating Project Implementation, Design and Documentation	<ul style="list-style-type: none"> • Actively consider total cost of project (over the life cycle) as part of the design and documentation process. • Develop and agree upon a range of Quality Management Tools including checklists, review procedures and audit processes. • The client and project team to consider the role of independent reviewer or value management. • Consultants to provide advice on the quality of documentation that could be reasonably expected from the agreed resources allocated and timelines established for the period. • Consultants to warrant that they have undertaken the design and documentation in a manner consistent with their quality plan. • Use of technology by consultants to assist in Project team to agree upon and nominate an experienced person responsible for documentation coordination. • Quality plan to make provision for secondary consultants to be satisfied on the completeness of information supplied by the primary consultants. • Obtain approvals and segmental sign off documentation control and coordination.
Protocol 5 – Consultant Obligations and Functions	<ul style="list-style-type: none"> • Comply with code of ethics and professional conduct requirements concerning quality of documentation and offer fees commensurate with the effort involved. • Advice the client on the adequacy of the brief and the risks associated with any inadequate allowance for proper documentation in both budgets and programs.

Protocols	Principles
	<ul style="list-style-type: none"> • Coordinate secondary consultants, obtain their sign-off on completeness of their documentation, and provide overall sign-off to the client that project documentation is comprehensive. • Ensure version control of documents to secondary consultants. • Create design and documentation coordination roles within project team.

Source: (ACIF. 2015)

2.7 Phase Wise Construction Project Documents/Records

Aditya & Mahatme (2017), noted that with changing phase of project different documents records come to existence. On the principles of inclusivity of all the stakeholders in construction projects, documents and records used in construction project and are described below.

Table 2.4: Protocols and Principles of Project Documentation

S/No.	Construction Project Phase	Key Document Records Required
1.	Concept Feasibility Phase	[1] Pre planning notes about the project [2] Planning about man, machine, material and money [3] No Objection Certificates [4] Permissions from local authorities [5] Pre planning notes about the project
2.	Tendering	[6] Tender notice [7] Specification [8] Tender validity [9] Tender award certificate [10] Quotations [11] Quantity calculation [12] Work order [13] Time schedules [14] Escalation conditions
3.	Contracting	[15] Negotiation rates [16] Special condition [17] Scope of work [18] Price related documents [19] Conditions+ penalty+ [20] Conditions of sub-contracting [21] Project budget

S/No.	Construction Project Phase	Key Document Records Required
4.	Construction Work	[22] Detailed budget with supportive calculation [23] Royalties + branding [24] Architectural / structural / plumbing etc. drawings [25] General instructions [26] Safety schedule (manual) [27] Store records [28] Extra work records [29] Work changes [30] Test report for quality [31] Remuneration / payments done+ payments received [32] Taxes paid [33] Running accounts Bills [34] Work order [35] Work check Certificates [36] RMC Checklists [37] Work permit [38] Delay Analysis [39] CPM/PERT/BAR Charts [40] Material record [41] Project schedule
5	Completion Maintenance	[42] Completion certificate [43] Final certificate [44] Repair/ maintenance schedule

Source: (Aditya & Mahatme 2017),

2.8 Challenges in Pre-Tender Documentation

Pre-tender documentation is a critical aspect of the construction and procurement process, but it is not without its challenges. Various factors can complicate the preparation and management of pre-tender documentation. Some of the key challenges in pre-tender documentation include, (Wysocki, 2014), (Hughes & Champion, 2008), (Harris, 2001):

- a) Incomplete or inaccurate information: Gathering complete and accurate project information, including site conditions and technical specifications, can be challenging. Incomplete or inaccurate information can lead to misunderstandings, disputes, and cost overruns during the project.

- b) Scope creep: Clients may change project requirements or scope after pre-tender documentation has been prepared. This scope creep can invalidate existing documentation and create confusion for bidders.
- c) Lack of standardization: Inconsistent or non-standardized pre-tender documentation practices can make it difficult for bidders to compare projects and estimate costs accurately. Standardization is essential for transparency and fairness.
- d) Time constraints: Clients and project owners may impose tight deadlines for pre-tender documentation preparation. Rushed documentation can lead to errors, omissions, and inadequate quality, impacting the overall success of the project.
- e) Complexity and length: Some projects are highly complex, requiring extensive documentation. Long and complex pre-tender documents can overwhelm bidders and make it challenging to identify critical project details.
- f) Managing changes: As the project evolves, changes may be necessary in the pre-tender documentation. Managing and communicating these changes to all stakeholders can be a challenge to ensure everyone has the most up-to-date information.
- g) Maintaining confidentiality: Maintaining the confidentiality of sensitive project information, such as bid prices and proprietary designs, can be challenging while still providing enough information to bidders for accurate pricing.
- h) Communication gaps: Ensuring effective communication between the client, project team, and potential bidders is vital. Miscommunication or a lack of clarity can lead to misunderstandings and disputes.
- i) Regulatory compliance: Complying with various regulatory requirements, including environmental, safety, and labor laws, within the pre-tender documentation can be complex and challenging.
- j) Technology and digitalization: Keeping pace with rapidly evolving technology for document management, collaboration, and communication can be a challenge, especially for organizations still relying on manual processes.

In conclusion, pre-tender documentation plays a crucial role in the construction and procurement process, but it comes with its fair share of challenges. Addressing these challenges effectively through careful planning, standardization, and clear communication is essential to ensure that pre-tender documentation serves its purpose of facilitating a successful project outcome.

2.9 Theories Related to Evaluation of Pre-Tender Documentation of Public Projects

There are several theories and approaches related to the evaluation of pre-tender documentation in public projects. These theories are often used to assess the quality, completeness and effectiveness of the documentation.

2.9.1 Information Asymmetry Theory

Information asymmetry theory, as developed by George Akerlof and Joseph Stiglitz, can be applied to evaluate pre-tender documentation. It focuses on the unequal distribution of information between parties in a transaction, such as the government agency and potential contractors which can lead to market inefficiencies, adverse selection and moral hazard. Information asymmetry can occur when one party possesses more or better information than another, resulting in imbalances of power and information in various economic exchanges. Assessing how pre-tender documentation mitigates or exacerbates information asymmetry is crucial, (Akerlof, 1970).

2.9.2 Agency Theory

Agency theory, which explores relationships between principals and agents, can be used to assess the documentation's role in aligning the interests of government agencies (principals) and contractors (agents). The quality and clarity of pre-tender documentation can influence the agency relationship, (Jensen, 1976). At the core of agency theory is the principal-agent relationship. Principals hire agents to act on their behalf, but the agents may have their own interests, which can lead to conflicts.

2.9.3 Quality Management Theory

Quality management theory is a systematic approach to ensuring that an organization consistently delivers products or services that meet or exceed customer expectations. It emphasizes the importance of quality control, continuous improvement, and customer satisfaction in organizational processes.

Quality management theories, including Total Quality Management (TQM) and Six Sigma, are relevant for evaluating pre-tender documentation. These theories emphasize the importance of clear, consistent, and comprehensive documentation to achieve quality outcomes, (Deming, 1986). Continuous improvement is a fundamental concept in quality management theory. It involves making incremental improvements to processes, products, or services over time. The goal is to enhance efficiency, quality, and customer satisfaction.

2.10 Literature Gap

The existing literature on pre-tender documentation in public building projects often emphasizes aspects such as cost, time, and quality, (Smith & Merna, 2006). However, there is a notable research gap concerning the investigation of the perspectives and involvements of various stakeholders, including government agencies, contractors, local communities, and project beneficiaries in the context of Economic Stimulus Programme (ESP) building projects. Previous research, such as the work of Dwivedi (2021), underscores the importance of considering multiple stakeholders' viewpoints and their influence on project outcomes, (Dwivedi, 2021). These studies reveal that inadequate stakeholder involvement and communication can lead to misunderstandings and disputes, potentially hindering the achievement of project goals.

This study explores how these stakeholders perceive the program's effectiveness, transparency, and impact on local development. It is well-documented in the literature, as highlighted by James and Green (2017) and White (2016) that transparency and stakeholder engagement are crucial for successful project implementation, (James & Green, 2017), (White, 2016). These studies indicate that insufficient transparency and

stakeholder engagement can result in projects that fail to address genuine community needs and are less likely to achieve sustainable outcomes.

The Government has allocated substantial funds through ESP but has failed to provide a comprehensive documentation framework for effective project implementation at different project phases. The implications of this issue are well-documented in previous studies. For instance, research by Black (2018) and Rogers (2019) illustrates how the absence of a robust documentation framework can lead to cost overruns, delays, and poor quality in construction projects, (Black, 2018), (Rogers, 2019). This study intends to demonstrate that, for the effective implementation of ESP projects and the delivery of the program's overall objective, there is a clear need to develop a framework for construction project documentation in different phases of the project and for the operation of these projects. Implementing such a framework, as proposed by Gray (2021) and Smith (2017), could help enhance transparency, accountability, and the long-term success of ESP building projects, ultimately benefiting both the government and local communities, (Gray, 2021), (Smith T. , 2017).

2.11 Theoretical Framework

This research makes use of the discussed theories – information asymmetry theory, agency theory and quality management theory. In summary, information asymmetry theory highlights the need for transparency, agency theory emphasizes the importance of aligning interests and clear contracts, and quality management theory stresses the need for continuous improvement and customer satisfaction. These theories collectively provide valuable perspectives for assessing and improving pre-tender documentation in public building projects in Kenya, ultimately contributing to the efficiency and effectiveness of these projects.

Regarding information asymmetry in the context of pre-tender documentation in public building projects, it highlights the potential disparities in information between government agencies (principals) and contractors (agents). This imbalance can lead to inefficiencies as contractors may have an advantage in understanding project details, potentially leading to adverse selection or moral hazard. The presence of information

asymmetry may necessitate increased transparency and disclosure requirements in pre-tender documentation.

Agency theory focuses on the relationships and conflicts of interest between principals (owners or agencies) and agents (contractors). This theory underscores the importance of aligning the interests of government agencies (principals) with the contractors (agents). Strengthening contracts and communication mechanisms can be essential in minimizing agency problems.

Quality management theory, which includes Total Quality Management (TQM) and a focus on continuous improvement, underscores the importance of quality, completeness and clarity of pre-tender documentation. To enhance the quality of pre-tender documentation, principles of continuous improvement can be applied. Organizations responsible for these documents should regularly review and refine their content, seeking feedback from stakeholders to ensure clarity and completeness. Quality management techniques can also be applied to identify and rectify any shortcomings in the documentation process.

2.12 Conceptual Framework

The figure 2.2 below shows the proposed conceptual framework.

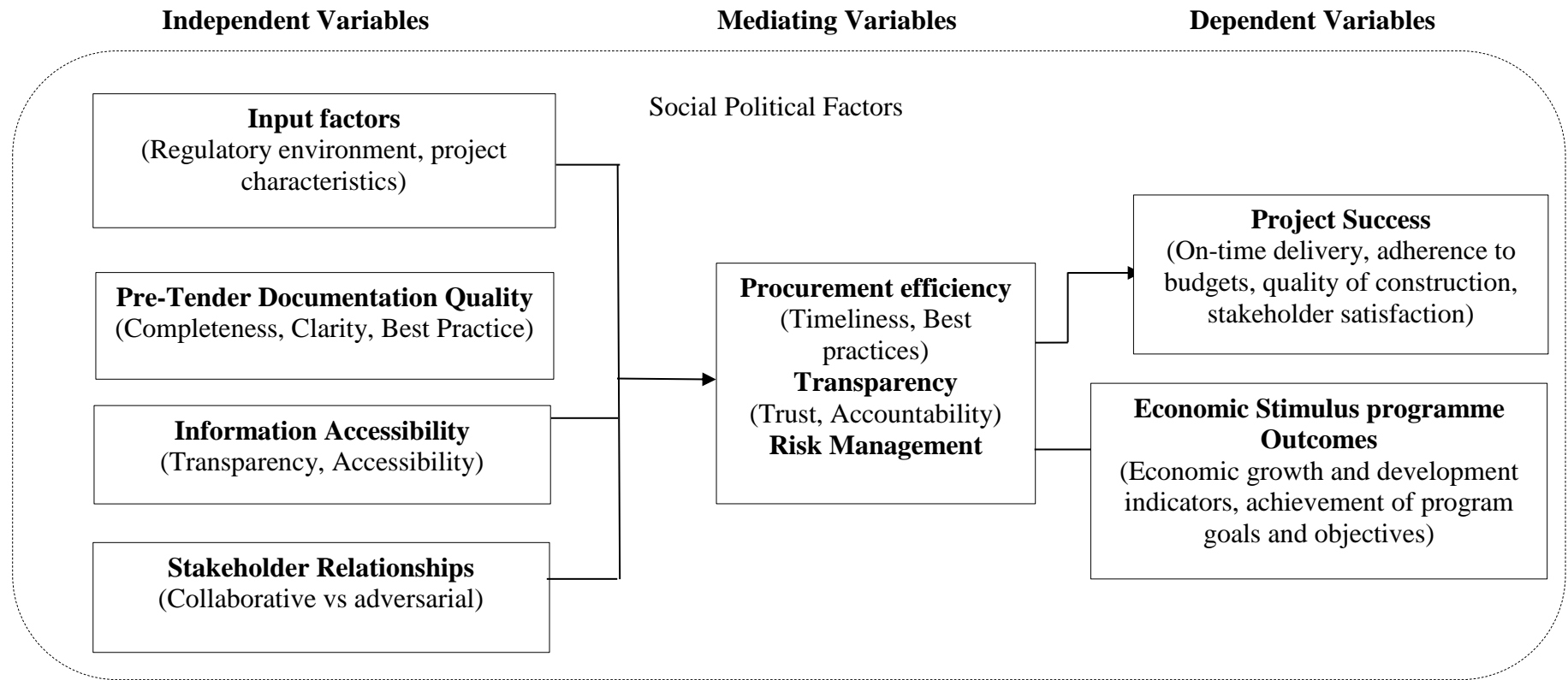


Figure 2.2: Conceptual Framework

Source: (Researcher, 2020)

Key: \longrightarrow Leads to

The framework begins by examining the legal and regulatory framework governing public procurement in Kenya, focusing on the Public Procurement and Asset Disposal Act of 2015 and any subsequent amendments. It explores how these laws influence the preparation and quality of pre-tender documentation. Specific project characteristics include project type, complexity, budget and funding sources. Pre-tender documentation quality is mainly dependent on the completeness considering the inclusion of required project details, technical specifications, scope and terms and conditions. This contributes to clarity and consistency. It examines how clear and consistent documentation influences project outcomes and adherence to budgets while in alignment with the best practices. Information accessibility mainly deals with the ease of access of pre-tender documentation for all relevant stakeholders whereas transparency deals with the extent to which information is readily available to all stakeholders. Stakeholders relationships deals with the nature of principal-Agent relationships. This is in consideration of whether these relationships are collaborative or adversarial and how this impacts the quality of pre-tender documentation and project success.

The mediating variables is mainly procurement efficiency that maintain timelines and is in alignment with the best practices. This leads to project success which can be measured by the following metrics: a) on-time project delivery; b) Adherence to budgets; c) Quality of construction and finally stakeholder satisfaction. In the end, the success rate of this adoption framework is on how it directly affects building projects in the economic stimulus programme. This can be measured through economic growth and development indicators. This considers how the success of individual projects, influenced by pre-tender documentation, contributes to broader economic goals. Finally, the achievement of program goals and objectives. This examines how individual project outcomes, influenced by pre-tender documentation, contribute to the success of the program as a whole. Government reports and program documentation serve as primary sources of information for this variable.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the methodology used in evaluation of pre-tender documentation of public building projects in Kenya. It covers the research design, research strategy, case for the study, data collection methods, variables in the study, data analysis, ethical considerations and the measures of trustworthiness.

3.2 Research Strategy

Qualitative and quantitative research strategies were used for this research. Qualitative research is a research strategy that focuses on understanding human behavior, experiences, and phenomena from a holistic and subjective perspective. This approach is particularly useful when researchers aim to explore complex social and human phenomena in depth. According to Bryman, this research strategy is characterized by its exploratory and interpretive nature. It seeks to delve into the nuances of human behavior, attitudes, and social contexts through methods that prioritize understanding and meaning over statistical generalization, (Bryman, *Social Research Methods*, 2012). Qualitative data was mainly obtained through interviews and content analysis including MoPW publications, progress and procurement reports, minutes, MoPW drawings, plans and Bill of Quantities. Interviews were carried with various personnel in the MoPW and MoF as well as with construction team members of the projects in the study areas.

Quantitative strategy sought to address questions such as ‘how much’ or ‘how many’ and provides a strong basis for explaining phenomenon. It is a research strategy that emphasizes quantification in the collection and analysis of data, (Bryman, 2012). It also allows explanatory assertions and inferences to be made regarding the sample and population at large. Quantitative data from the design teams that were involved in the documentation and implementation of the ESP building projects was used to derive the adequacy of the pre-tender documentation.

3.3 Research Design

The research design to be adopted in this research is case study. This design focuses on in-depth examination and analysis of a single case or a small number of cases within their real-life context. This research design is particularly useful when researchers aim to gain a deep understanding of complex social phenomena, processes, or unique situations. According to Bryman, case study research begins with clear research objectives and questions that guide the study. These objectives often aim to explore, describe or explain the unique aspects of the chosen case(s) in detail, (Bryman, Social Research Methods, 2012). It is a rigorous and systematic approach to investigating a single or multiple case in depth. It involves careful planning, data collection, analysis and interpretation to gain a holistic understanding of complex phenomena within real-life contexts.

The case study for this research was government sponsored construction projects undertaken by the Ministry of Public works. The essence was to capture if and how documentation was conducted by the construction teams.

Cross sectional design which involved collection of data predominantly through questionnaires was used to collect a body of quantitative data which informed on the pre-tender documentation of public building projects in Kenya.

3.4 Case Studies

The cases for this study involved building projects in the Economic Stimulus programme. To establish the projects and the areas, the study is based on purposive sampling. Purposive sampling is used to establish the specific type and location for the study that provided data that represents the whole country. The target population studied was all the ESP projects in Kenya, 1883 in total. The sampling frame consists of the specific projects across all the sub-counties in Kenya. Broadly speaking, it contains 7 projects types across the 260 sub-counties in Kenya. The sub-counties are categorized as provided in table 3.1 below:

Table 3.1: Kenya EPS Project Status Report

ESP Project	% Completion				
	100	70-99	25-69	1-24	Not commenced
Health centres	N	34	89	13	74
Fresh food markets	O	0	53	80	47
Primary schools	N	83	57	69	211
Secondary schools	E	33	75	69	178
CIDC		24	80	7	99

Source: www.economicstimulus.go.ke (2012)

The project types include:

- a) Education projects
- b) Healthcare projects
- c) Jua kali sheds
- d) Market stalls
- e) Fish ponds
- f) Irrigation agriculture and
- g) ICT development

It is expected that the technical staff involved in the running of ESP projects summarized in table 3.1 above prepare adequate and relevant documentation for future projects. This approach mainly focuses on how to achieve this value from improving documentation.

The study was based on a sample drawn by type and spatial location. Sampling by spatial location was done through purposive sampling. To understand the study across the different social settings, this study chose to have a sub-county, a peri-urban and a rural sub-county to capture a representative conclusion. ESP projects in Transmara East, Thika East and Kasarani district were selected. Finally, three project types across the three sub counties identified were purposefully selected, giving nine (9) specific projects across the country.

3.5 Data Collection Methods

Close ended questions were used in the questionnaires. These were used to derive feelings of the respondents, motivation as well as the background. The questionnaires were categorized to include all parts under study in the objectives. As discussed by Bryman (2012), closed questions provide fixed alternatives to the respondents to choose the most appropriate, (Bryman, 2012). A draft version of the questionnaire was distributed to some respondents and collected back for finetuning before the actual data collection.

The questions were structured into three sections namely: Part A (General information), Part B (Quality of Documentation), and Part C (Project documentation outcomes).

Qualitative data was obtained through content analysis as well as interviews. Primary data contained various project-specific details and reports collected from ESP projects in Transmara, Thika East and Kasarani sub counties. These included; MoPW drawings, plans, BoQs of projects in the three sub counties, project procurement reports and minutes, project progress reports and evaluations, MoF and MoPW publications, reports and minutes. Interviews were mainly conducted with construction team members of the projects in the study areas as well as with personnel in the MoPW and MoF.

3.6 Variables in the study

Independent Variables

a) Input Factors

- Regulatory environment: legal and regulatory framework governing public procurement, adherence to laws and guidelines.
- Project characteristics: Project type, project complexity, budget and funding sources
- Stakeholder engagement: engagement and collaboration among key stakeholders, communication and information sharing.

- Compliance with standards and regulations
- b) Pre – Tender Documentation Quality
- Completeness: the extent to which documentation contains all required project details, inclusion of technical specifications, scope of work and terms and conditions.
 - Clarity and consistency: the level of clarity in project requirements, consistency in information across various documents
 - Alignment with best practices: conformance with recognized best practices in public procurement, incorporation of industry standards
- c) Information accessibility and transparency
- Accessibility: ease of access to pre-tender documentation
 - Transparency: the extent to which information is readily available to all stakeholders
- d) Stakeholder relationships
- Nature of principal – agent relationships
 - Collaborative versus adversarial dynamics

Dependent Variables

- a) Project success
- On – time project delivery
 - Adherence to budgets
 - Quality of construction
 - Stakeholder satisfaction
- b) Economic stimulus programme outcomes
- Economic growth and development indicators
 - Achievement of program goals and objectives

3.7 Data Analysis

Data analysis could be described as organizing, providing structure and elicit meaning to the collected data. Quantitative data analysis was performed using Statistical Package for Social Scientists (SPSS). SPSS is a tool used to collect, analyze and

interpret data in an organized pattern. Raw data from the questionnaire was fed into the software to produce new statistics which were then used as predictors. Representation was done in form of tables, graphs and statistical reports.

Summarily, the data analysis was carried out in the following order: Firstly, data collection; Secondly data categorization; thirdly data summarization and fourthly the interpretation.

Qualitative data analysis was carried out using thematic analysis to make sense of the research findings. It involves identifying categories in the data collected that relates to the research aim which is mainly built on the codes identified in the transcripts and field notes. This serves as the basis for the theoretical contribution to the literature relating to the research objectives (Bryman, Social Research Methods, 2012). Thematic data analysis is a qualitative research method used to identify, analyze, and report patterns (themes) within a dataset. It is a systematic and rigorous approach that allows researchers to uncover meaningful insights from qualitative data such as interview transcripts, focus group discussions, or textual documents. The process of thematic data analysis includes: familiarization with data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; writing a narrative; validating themes and finally writing a report, (Braun, 2006).

3.8 Validation and Reliability

Reliability is primarily concerned with issues of consistency of measures whereas validity evaluates whether a measure of a concept really measures that concept, (Bryman, 2012). To maintain validity in this study, the researcher first established face validity by consulting few experts involved in public building projects in Kenya. Upon evaluating whether the questions were valid, a pilot survey was carried out on a sample of the intended population. The respondents derived from the pilot were then used to refine the research questions for the main survey.

For reliability purposes, the research re-administered the questions to the same group of respondents so as to ensure that the responses did not fluctuate.

3.9 Ethical Considerations

Ethics revolves around four main areas namely: whether there is harm to participants; whether there is lack of informed consent; whether there is invasion of privacy and whether deception is involved, (Bryman, 2012). To ensure there is ethical practice in carrying out this research, the researcher observed the following: Caution was practiced not to interfere with their privacy necessitated by the constant follow ups. Also, the researcher obtained consent before digging into the particularities of the project which might involve disclosing information which might seem confidential.

Confidentiality was also treated with utmost regard. Caution was practiced to ensure that the information obtained from the research participants was confidential. To achieve this, the researcher avoided putting down any names on the questionnaire sheets. In addition, no subject knew the identity of any other subject.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter constitutes data analysis, presentations and interpretation of the research findings. It covers the introduction, questionnaire return rate and descriptive data presentation as per research objectives/variables, thus; the examination of the adequacy of pre-tender documentation done by the MoPW construction teams; evaluation of the effectiveness of construction teams during the process of pre-tender documentation and the exploration the best project pre-tender documentation framework. It contains the presentation of the findings emanating from the primary data collected during the study. Data from the respondents was analysed using the Statistical Package for Social Scientists (SPSS), from which the statistics in the form of frequencies and percentages are discussed and interpreted.

4.2 Background to the structured questionnaires

Close ended questions were applied in the study. These were used to derive the feelings of respondent's motivation as well as the background. These were categorized based on the objectives, Google forms which is a survey administration software was used to send out the questions to respondents via email. Respondents would then answer and submit their answers back to the researcher. The responses were then fed into SPSS which is a software package used for interactive or batched statistical analysis.

The major challenge experienced which conducting this field study was the reluctance of some of the respondents to provide feedback upon sharing the questionnaires while others declined to provide full information as requested.

4.3 Response Rate and the Demographic Profile of the Respondents

4.3.1 Respondents Response Rate

The response rate indicates the percentage level of response by looking at the targeted number of respondents against the actual number of individuals who participated in the study. The results on response rate are displayed in the table 4.1 below. 14 out of 20 respondents provided feedback which translates to a 70.0% response rate.

Table 4.1: Questionnaire Return Rate

Category	Questionnaires Sent	Questionnaires Returned	Response Rate (%)
MoPW Contractors	20	14	70.0%

Source: (Author)

Mugenda & Mugenda (2003) explain that in questionnaire administration, a response rate of 50% is adequate for analysis and reporting; 60% is good response while 70% is very good, (Mugenda, 2003). The response rate of 70.0 % is very good and sufficient for data analysis, reporting and drawing conclusions.

4.3.2 Demographic Profile of the Respondents

The demographic profile was evaluated in three dimensions. These include; location of the ESP projects; types of ESP projects and finally the number of ESP projects.

4.3.2.1 Location of the ESP Projects

As shown in figure 4.1 below, 50.0% of the projects considered for the study were located within Thika sub county, 7.1% in Kasarani Sub county and 42.9% located Transmara Sub county. As already mentioned, to improve the quality of research findings, projects in different geographical areas were purposively chosen. The three sub counties chosen represent an urban sub county, a peri – urban and a rural sub county necessary in capturing a representative conclusion.

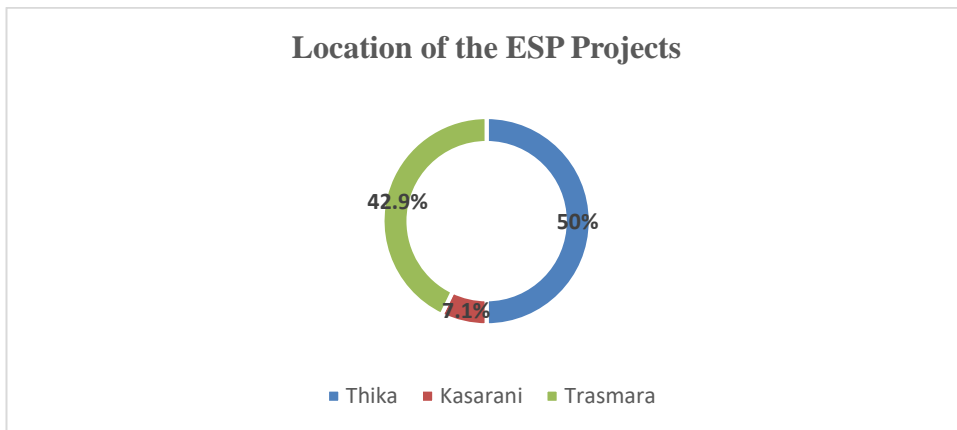


Figure 4.1: Location of the ESP projects

Source: Field Survey (2018)

4.3.2.2 Types of ESP Projects

The types of ESP projects identified as shown in figure 4.2 below are: 14.3% health centres, 14.3% market stalls, 14.3% primary schools, 21.4% industrial sheds, 14.3% secondary schools and 21.4% Sub County Headquarters. The Economic Stimulus Programme (ESP) in Kenya was initiated to boost economic growth and development by funding various projects across the country. The results as mentioned shows the wide array of the projects funded under the ESP. These projects are typically funded by the government to stimulate economic growth, create employment opportunities and address critical development challenges in Kenya. The variety of project types aims to have a broad and lasting impact on the economy and the well-being of Kenyan citizens.

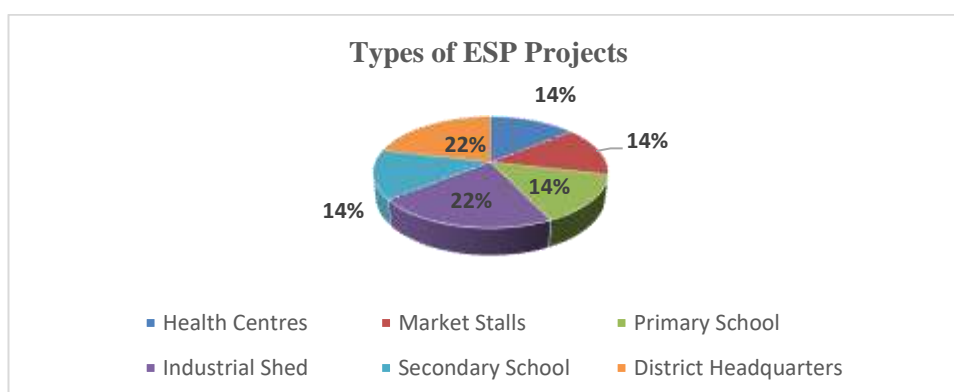


Figure 4.2: Types of the ESP Projects

Source: Field Survey (2018)

4.3.2.3 Number of ESP Projects

As shown in table 4.2 below, the variance in the number of ESP projects in the three sub counties is minimal. In principle the number of projects under ESP can vary from year to year and can depend on factors such as Government priorities, budget allocations, and local development needs.

Table 4.2: Number of ESP Projects

Number of ESP Projects		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mirera-Juja	2	14.3	14.3	14.3
	District Headquarters-Kilimambogo	1	7.1	7.1	21.4
	Emurr-Dikirr DH	1	7.1	7.1	28.6
	Gachororo Health centre	1	7.1	7.1	35.7
	District Headquarters-Kasarani	1	7.1	7.1	42.9
	Kilgoris Industrial Shed	1	7.1	7.1	50.0
	Kilgoris Market-Stage	1	7.1	7.1	57.1
	Kilgoris Primary School	1	7.1	7.1	64.3
	Kilgoris Secondary School	1	7.1	7.1	71.4
	Kisima Primary	1	7.1	7.1	78.6
	Market- Ngoliba	1	7.1	7.1	85.7
	Oldanyati	1	7.1	7.1	92.9
	St.Georges Girls Secondary School	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Source: Field Survey (2018)

4.4 Data Analysis for the Study Objectives

The study explored three specific objectives. The findings of each of these objectives is covered at length in the following paragraphs.

4.4.1 Objective 1: Adequacy of Pre-Tender Documentation Done by MoPW Construction Teams

Pre-tender documentation provided by the Ministry of Public Works in Kenya typically includes a set of documents and information that are made available to potential bidders or contractors before the official tendering process begins. These documents are crucial for bidders to understand the project, its requirements, and to prepare their bids accurately. While specific documents may vary depending on the project, common pre-tender documentation includes;

- a) Invitation to Tender
- b) Instruction to Bidders
- c) Tender documents
- d) Conditions of contract
- e) Bills of Quantities
- f) Pricing Schedule
- g) Site visit and Pre-Bid meeting information
- h) Evaluation criteria
- i) Qualification requirements
- j) Bid security and performance guarantee information
- k) Legal and regulatory compliance

In general, specific contents and format of pre-tender documentation may vary from project to project and could be updated over time. Bidders are tasked in ensuring that the documentation provided meet all the requirements and conditions.

The identified key pre-tender documentation for the construction of the ESP projects include Architectural plans, Bill of Quantities (BoQ) and the site analysis plans. From the survey, all site visited, 100% had Architectural designs, 92.9% has no BoQ. The

architectural drawings were mainly prepared by the MoPW headquarters in Nairobi as indicated by 85.7% of the respondents while 14.3% indicated that the drawings were prepared by the local MoPW consultants as shown in figure 4.3 below.

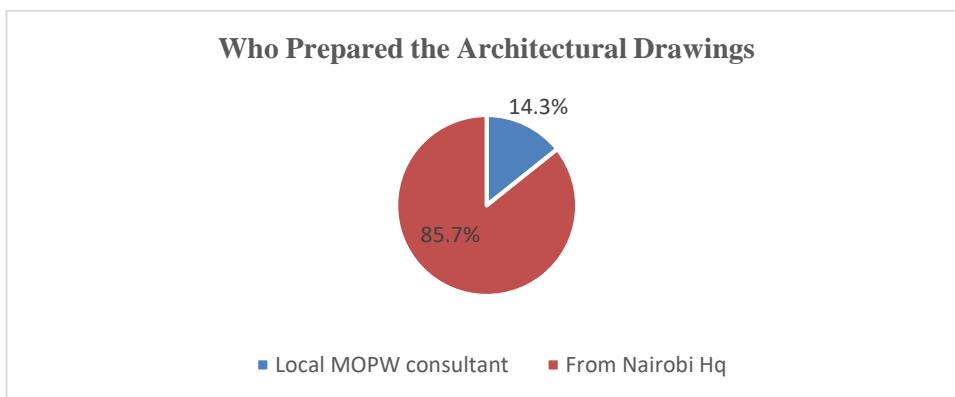


Figure 4.3: Party responsible for preparing Architectural drawings

Source: Field Survey (2018)

Regarding site analysis, 85.7% of the respondents indicated that there was no site analysis before the commencement of the ESP project whereas 14.3% indicated that there was site analysis for the ESP projects as shown in figure 4.4 below. The sites analysed, the analysis was mainly carried out by MoPW or their local architects within the project sites as indicated in table 4.3.

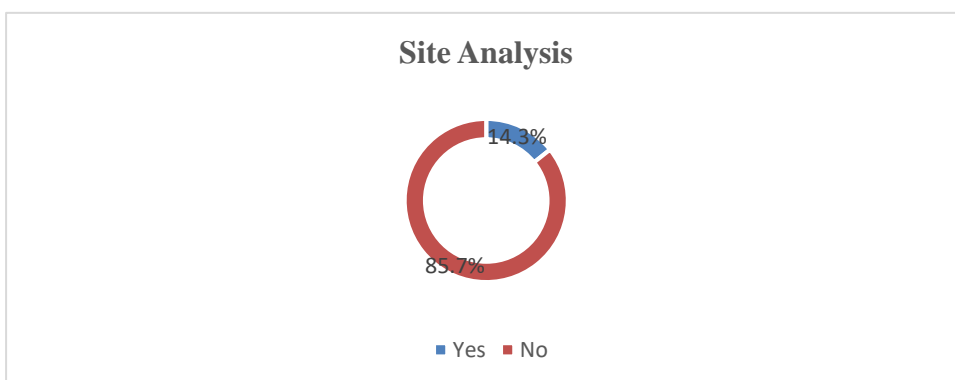


Figure 4.4: Availability of Site Analysis plans

Source: Field Survey (2018)

Table 4.3: Party carrying out the site analysis plans

			Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Local	MoPW	2	14.3	14.3	14.3
	Architect					
	Not Applicable		12	85.7	85.7	100.0
Total			14	100.0	100.0	

Source: Field Survey (2018)

The adequacy of pre-tender documentation for Economic Stimulus Programme (ESP) building projects carried out by the Ministry of Public Works in Kenya is a critical factor in ensuring the success and transparency of these projects. The general considerations of pretender documentation include; clarity and completeness; transparency; technical quality; alignment with project objectives; compliance with regulatory framework; standardization; involvement of stakeholders and feedback mechanism. From the analysis, it is evident that the intensity with which pre-tender documentation is done by Ministry of Public works construction teams regarding ESP building projects is minimal.

This is indeed alarming since the adequacy of pre-tender documentation can significantly impact the efficiency and success of ESP building projects. Contractors rely on these documents to make informed decisions and submit competitive bids. Ensuring that the documentation of clear, comprehensive and transparent can help prevent misunderstandings, disputes and project delays. Continuous monitoring and improvement of the documentation process are essential for the long-term success of the Economic Stimulus programme.

4.4.2 Objective 2: Effectiveness of construction teams in the process of Pre-Tender Documentation

The effectiveness of construction teams in the process of pre-tender documentation is a critical factor in the success of construction projects. Pre-tender documentation, which includes items such as project specifications, drawings, cost estimates, and other relevant information, lays the foundation for the entire construction project.

Furthermore, consultation with the local communities before designing and constructing projects can have a significant impact on the success of those projects and the overall well-being of the community. As shown in figure 4.5, this effectiveness of the teams was determined by their level of consultation of the local communities to determine their choices of projects before design and construction. 21.4% of the respondents indicated that the local community was consulted whereas 71.4% indicated the contrary.

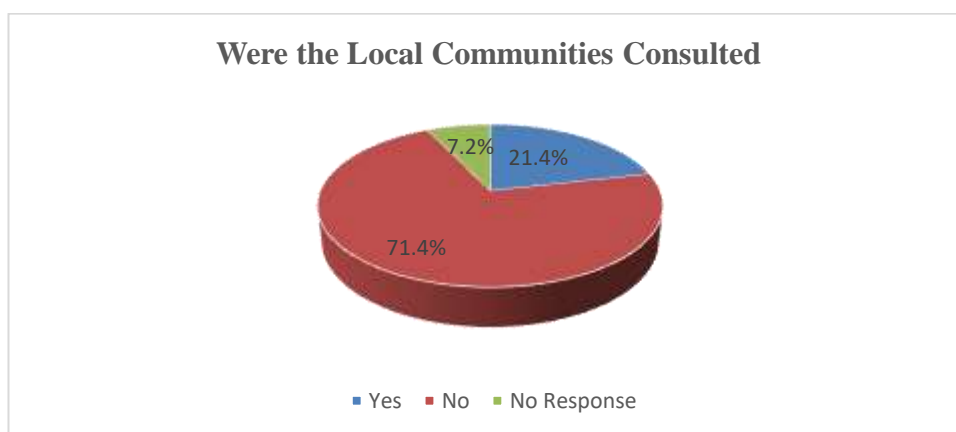


Figure 4.5: Consultation of Local communities

Source: Field Survey (2018)

Consulting local communities is a critical aspect of responsible and sustainable development. When teams actively engage with the local population, they can gain valuable insights into the community's needs, preferences, and concerns. This can lead to better project designs that are more likely to meet the community's requirements. Projects that take into account the input and concerns of the local community are more likely to be relevant and beneficial. By involving community members, teams can tailor projects to address specific issues that matter most to the people living in the area, leading to greater acceptance and long-term success. In addition, local community engagement helps identify potential challenges and conflicts early in the project's planning phase. This proactive approach can help teams address issues and conflicts before they escalate, reducing delays and additional costs.

The mode of consultation applied was local barazzas as indicated by 71.4% of the respondents while 71.4% found the issue of consultation not to be applicable. Different communities may have unique cultural, historical, and environmental factors that need to be considered in project design. Consulting with the local community helps teams navigate these aspects sensitively, ensuring that the project respects and preserves cultural heritage.

Table 4.4: Mode of Consultation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Local Barazzas	4	28.6	28.6	28.6
	Not Applicable	10	71.4	71.4	100.0
	Total	14	100.0	100.0	

Source: Field Survey (2018)

The implementation of the ESP projects took off as was acknowledged by 100% of the respondents. The majority of the projects commenced in the year 2010 as compared to those that took off in the year 2011. The supervision of the implementation of the ESP projects were mainly undertaken by the local MoPW architects. The level of completion of the ESP projects is shown in figure 4.6 below whereby, 25-50% level of completion was noted by 28.6% of the respondents, 51-75% by 35.7% of the respondents and 76-100% level of completion by 35.7% of the respondents.

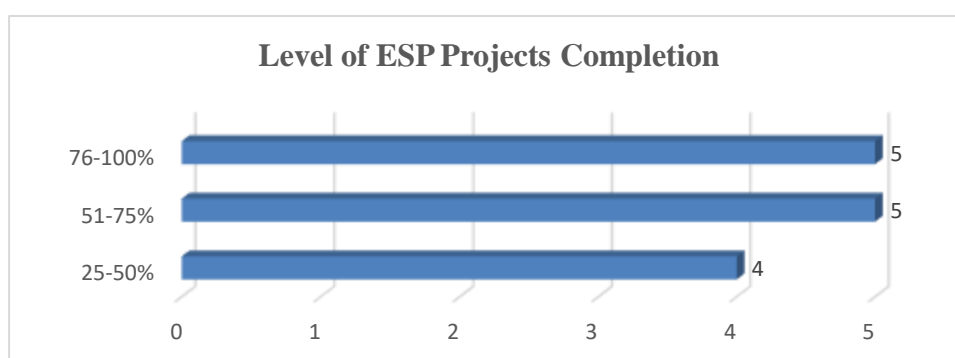


Figure 4.6: Level of ESP projects completion

Source: Field Survey (2018)

Projects that are designed in consultation with local communities are more likely to be sustainable in the long run. By incorporating local knowledge and preferences, teams can create infrastructure that fits into the local context, fosters community ownership, and is easier to maintain. Moreover, when communities are consulted and feel that their voices have been heard, they are more likely to support the project and be cooperative during the construction and implementation phases. This can lead to smoother project execution and fewer disruptions. As shown in figure 4.7 below, majority of the respondents had low level of work satisfaction. This is indicative of the poor satisfaction and the need for improved performance of the ESP projects.

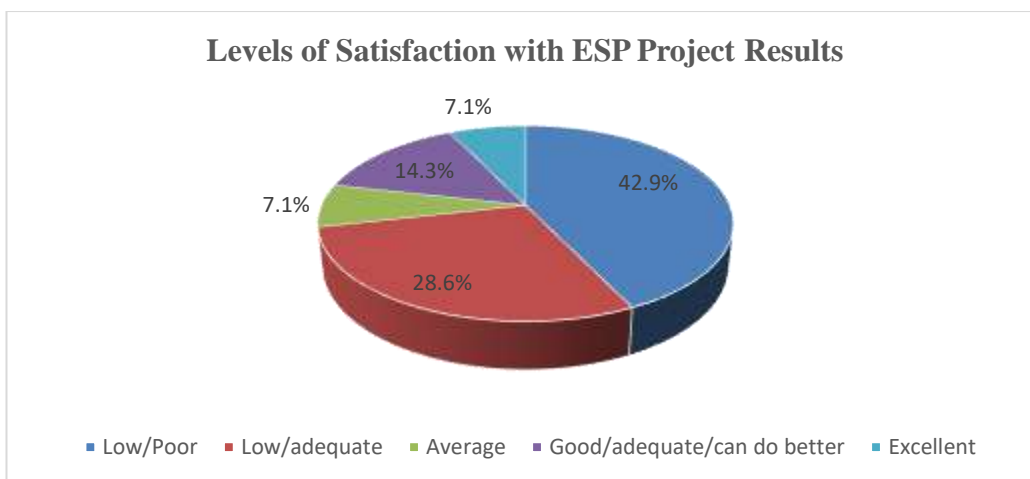


Figure 4.7: Level of Satisfaction with ESP project results

Source: Field Survey (2018)

Low levels of satisfaction with ESP projects can be indicative of various challenges and issues that need to be addressed. These includes:

- a) **Transparency and accountability:** Corruption, mismanagement, or misuse of funds can lead to dissatisfaction among citizens. Strengthening transparency and accountability mechanisms is vital to regain trust.
- b) **Community involvement:** When local voices are not considered, it can lead to projects that do not align with the needs and priorities of the people, resulting in dissatisfaction.

- c) **Monitoring and evaluation:** Robust monitoring and evaluation systems are critical to track project progress and ensure that objectives are being met. If these systems are lacking or ineffective, projects may go off track without anyone noticing until dissatisfaction surfaces.
- d) **Quality of implementation:** The quality of implementation, including construction standards, project management, and timely delivery, can greatly influence satisfaction levels. Subpar implementation can lead to dissatisfaction, as it may result in projects that do not meet expected standards.
- e) **Economic impact:** Assess the actual economic impact of the stimulus projects. Low satisfaction may stem from the perception that the projects did not have the intended positive economic effects, such as job creation, poverty reduction, or improved livelihoods.
- f) **Communication and public awareness:** In some cases, dissatisfaction may arise from a lack of clear communication about project objectives, progress, and expected outcomes. Better communication strategies can help manage expectations and improve public perception.
- g) **Political factors:** Projects may sometimes be driven by political considerations rather than purely economic or developmental needs, which can lead to dissatisfaction among the public.

Low satisfaction with economic stimulus projects in Kenya signals a need for comprehensive assessment, transparency, accountability, community involvement, and the implementation of corrective measures. It's essential to address these challenges to ensure that economic stimulus projects effectively contribute to the country's economic development and the well-being of its citizens.

The respondents further gave their perception on the different elements of the ESP projects as well as the accompanying categorized. This covered several dimensions including, siting of facility, site analysis, construction works, speed of construction and information availability

a) Sitting of the facility

As shown in table 4.5 and figure 4.8 below, the sitting of facility element of the ESP projects as well as its documentation was poor. The poor siting of a construction facility and inadequate documentation in the pre-tender phase can have significant repercussions on the overall effectiveness of construction teams and the success of a project. Poor site selection can lead to a range of issues, including logistical challenges, increased costs, and delays. Construction teams should conduct thorough site analysis and evaluation to ensure the chosen location aligns with the project's needs and goals. A poorly sited facility can result in inefficiencies and increased construction time and costs. Effective pre-tender documentation should address these considerations.

Table 4.5: Elements Best Done, Sitting of Facility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	7	50.0	50.0	50.0
	Fair	1	7.1	7.1	57.1
	Good	5	35.7	35.7	92.9
	Excellent	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Source: Field Survey (2018)

Accurate documentation during the pre-tender phase is crucial for budgeting and cost estimation. Poor documentation can lead to unforeseen expenses, which may strain the project's financial resources. Poor site selection and inadequate documentation can lead to a range of challenges and issues, ultimately affecting project success. It is crucial for construction teams to invest time and effort into thorough site analysis, proper documentation, and adherence to regulations and community concerns to optimize the chances of a successful construction project.

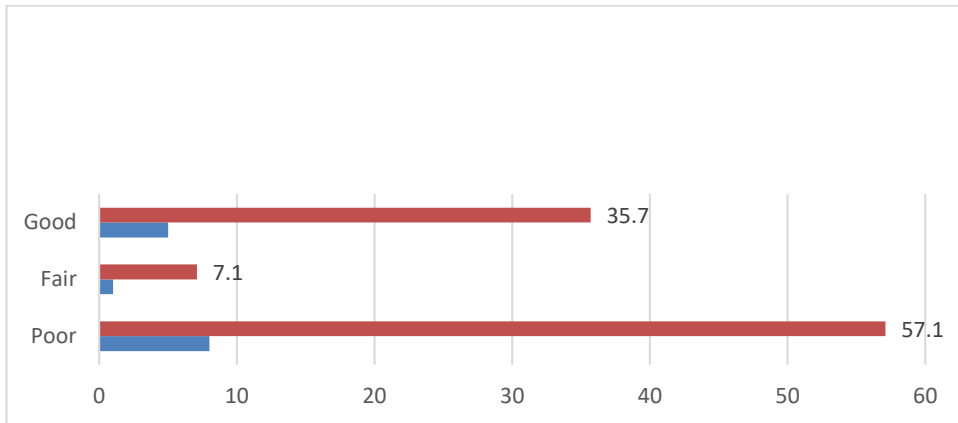


Figure 4.8: Categorized Documentation: Sitting of Facility

Source: Field Survey (2018)

b) Site Analysis

Similarly, most respondents felt that site analysis was poorly done as shown in figure 4.9 below. Without a comprehensive site analysis, construction teams may overlook potential risks and challenges associated with the site. This can result in inaccurate cost estimates and budget overruns, as unanticipated issues may emerge during construction. The absence of an in-depth understanding of the site's conditions can lead to costly delays and change orders. Inadequate knowledge of the site's conditions may result in design and construction decisions that are not suitable for the specific location. This can affect the longevity and durability of the project, potentially leading to post-construction issues.

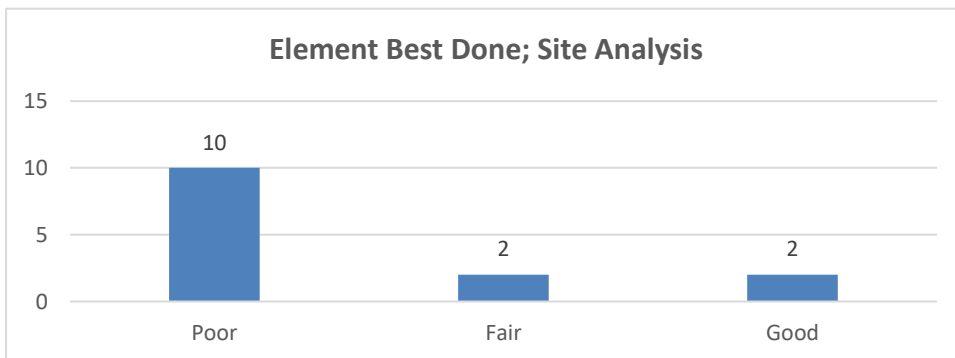


Figure 4.9: Elements Best done; Site Analysis

Source: Field Survey (2018)

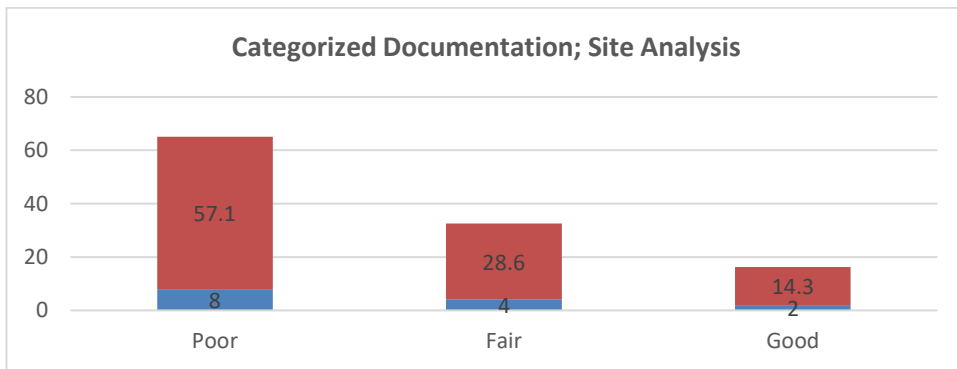


Figure 4.10: Categorized Documentation: Site Analysis

Source: Field Survey (2018)

c) Construction Works

As shown in figure 4.11 and 4.12, most respondents were of the opinion that the construction works were satisfactory. In part, successful execution of projects at this level demonstrates that the Economic Stimulus Programme in Kenya is making a tangible impact on local economies. It generates employment opportunities and stimulates economic activity.

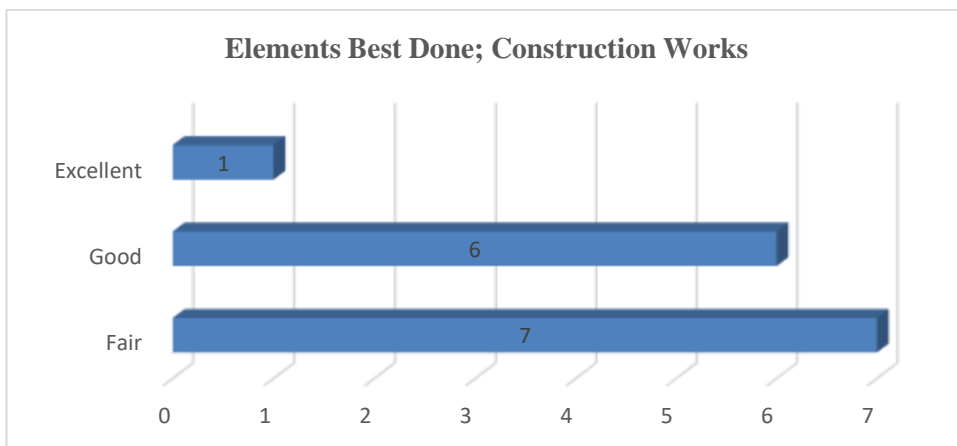


Figure 4.11: Elements Best Done: Construction Works

Source: Field Survey (2018)

The ability to deliver construction works at this level suggests that construction teams have effectively allocated resources, both in terms of materials and labor. While a fair to

good level of construction work is commendable, it's important to continuously seek ways for improvement. Constructive feedback and lessons learned from these projects can inform future endeavors and help achieve even better results.

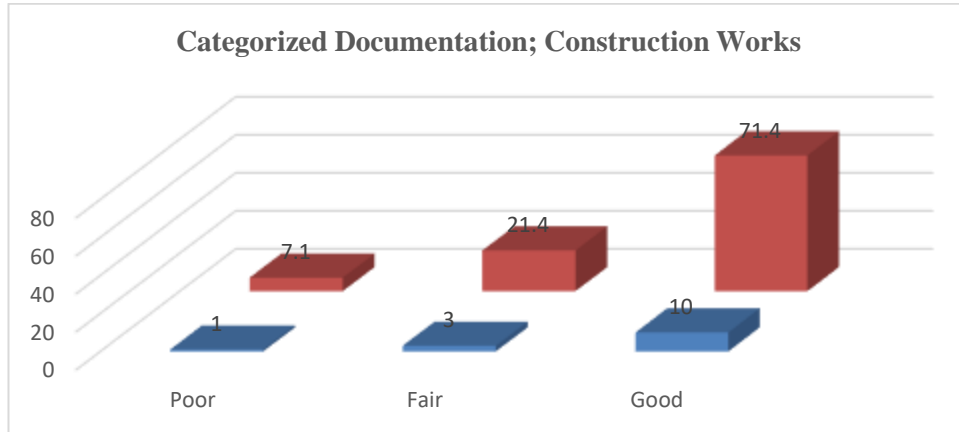


Figure 4.12: Categorized Documentation: Construction Works

Source: Field Survey (2018)

d) Speed of Construction

As shown in figure 4.13 and 4.14 respectively, the speed of construction as well as its accompanying documentation was fair. A rapid construction pace suggests that the pre-tender documentation was thorough and well-executed. It enables projects to be delivered on time, which is essential in ensuring the swift realization of project objectives, economic stimulus, and community benefits. Speedy construction helps stimulate local economies by creating employment opportunities and driving economic activity more rapidly, thereby fulfilling the objectives of the Economic Stimulus Programme.

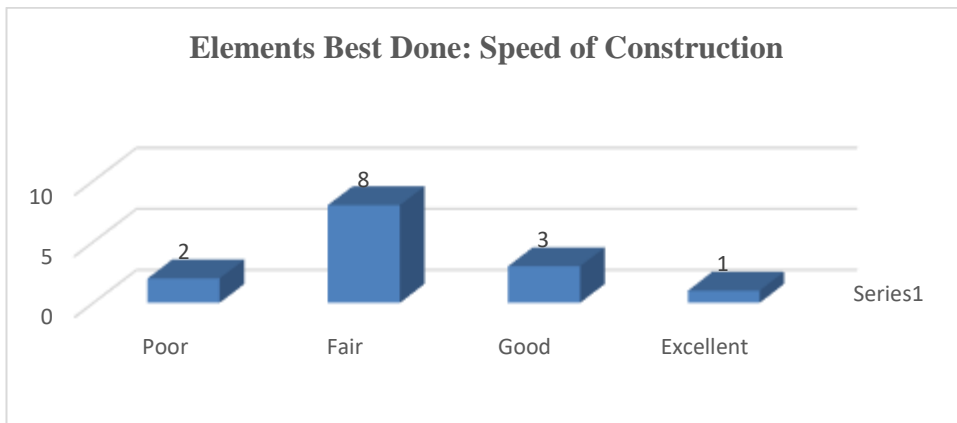


Figure 4.13: Elements Best Done: Speed of Construction

Source: Field Survey (2018)

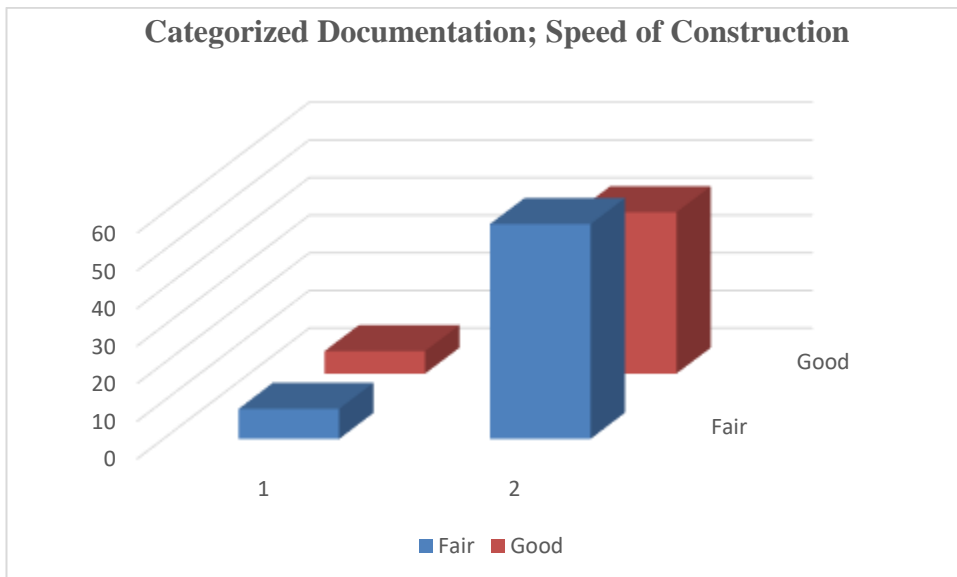


Figure 4.14: Categorized Documentation: Speed of Construction

Source: Field Survey (2018)

e) Information Availability

As shown in table 4.6 and figure 4.15, information availability was adequate. The availability of good information is pivotal to the effectiveness of construction teams during the pre-tender documentation phase of the Economic Stimulus Programme projects in Kenya. A wealth of available information equips construction teams with

the knowledge needed to make informed decisions during the pre-tender phase. This includes understanding project requirements, local conditions, regulatory compliance, and community needs. Access to a substantial amount of information enables thorough project planning. Construction teams can create detailed project schedules, budgets, and resource allocation strategies, which are crucial for effective execution.

Table 4.6: Elements Best Done, Information Availability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	10	71.4	71.4	71.4
	Good	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Good information availability is a cornerstone of effective pre-tender documentation and project management in the Economic Stimulus Programme projects in Kenya. It empowers construction teams to make well-informed decisions, plan comprehensively, manage resources efficiently, and engage with communities and stakeholders. It's a critical factor in ensuring the success of these projects and the realization of their economic and community development objectives.

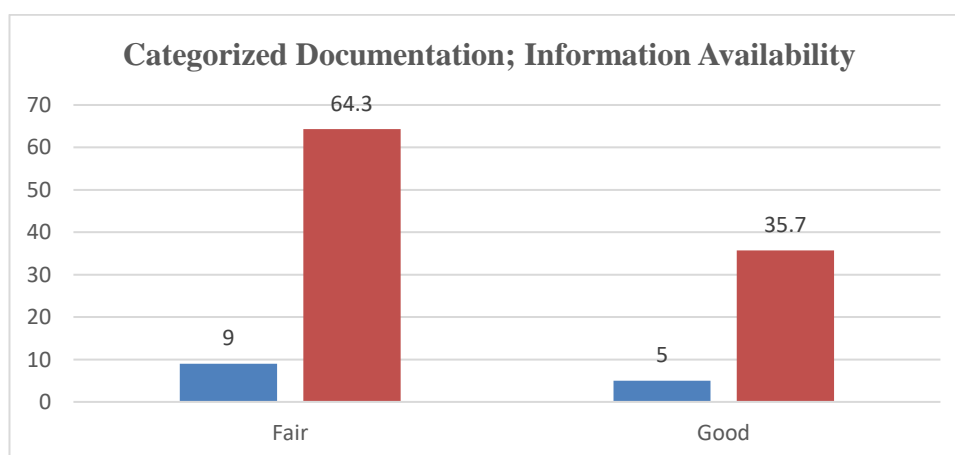


Figure 4.15: Categorized Documentation: Information Availability

Source: Field Survey (2018)

4.4.3 Objective 3: Framework for improving Pre-Tender documentation

The improvement of pre-tender documentation for Economic Stimulus programme (ESP) construction projects in Kenya, a comprehensive framework that encompasses various aspects is needed. The results and discussion of the first two objectives; adequacy of pre-tender documentation done by the MoPW construction teams; effectiveness of the teams provide insights into the inadequacy of the process. This has significant adverse consequences for project success, efficiency and transparency. The researcher proposes an interplay of the following factors for improvement of pre-tender documentation: needs assessment and planning; pre-tender documentation development; stakeholder engagement and transparency; training and capacity building; continuous monitoring and feedback; technology integration; documentation repository; project evaluation and learning; adaptation and continuous improvement.

Needs assessment and planning begins by clearly defining the objectives and goals of the construction project. This should be in alignment with the broader objectives of the ESP. In tandem, identification and engagement with all relevant stakeholders including government authorities, communities, contractors and consultants should be carried out. Additionally, a detailed site assessment to understand the physical characteristics, environment factors and potential challenges is equally vital to the success of pre-tender documentation.

The next stage is the pre-tender documentation development which includes; standardization; checklists; regulatory compliance and quality control. Standardization includes development standardized templates and guidelines for pre-tender documents ensuring consistency in the format and content of documents across all projects. Comprehensive checklists guide the inclusion of all necessary information, including technical specifications, scope of work, terms and conditions and compliance requirements. The documentation should comply with the legal and regulatory framework governing public procurement in Kenya. Additionally, quality control process to review and verify the accuracy, completeness and clarity of pre-tender documents should be enforced.

Stakeholder engagement and transparency is vital. Fostering collaboration and communication with all stakeholders boosts feedback loops and input needed in addressing concerns and enhancing transparency. Establishing a user-friendly and accessible digital platform or portal ensures that the pre-tender documentation is readily available to all interested parties. To encourage transparency in stakeholder engagement, mechanisms for version control, notifications of updates, and clear publication schedules should be implemented.

To ensure continuity, development of training programs for procurement officials, project managers and other relevant personnel to ensure a clear understanding of procurement regulations and best practices is crucial. Moreover, investing in capacity building efforts to enhance the skills and knowledge of procurement and project management teams. Integration of digital technologies and software tools help streamline the documentation process, enhance accessibility and improve on data management. Data analytics can be useful in tracking the effectiveness of pre-tender documentation and identify trends or areas for enhancement. This should follow a well maintained centralized and secure repository for all pre-tender documents with an easy access for authorized personnel while maintaining data security.

Finally, adaptation and continuous improvement should be enforced based on evolving project requirements, technological advancements, regulatory changes and feedback from stakeholders. Conducting regular audits and reviews of pre-tender documentation to identify areas for improvement and compliance with standards. Establishing a feedback mechanism where users and stakeholders can report issues or suggest improvements related to pre-tender documentation. Moreover, after project completion, conducting a comprehensive evaluation to assess the effectiveness of the pre-tender documentation in achieving project goals is vital in lesson learning. Applying these lessons learned for further improvement will aid in updating the framework accordingly.

By implementing this framework, ESP construction projects in Kenya can enhance the quality and effectiveness of their pre-tender documentation. It promotes transparency, stakeholder engagement, and compliance with regulations, ultimately leading to

improved project outcomes and successful economic stimulus program objectives. The diagrammatic representation of this framework is shown in figure 4.16 below.

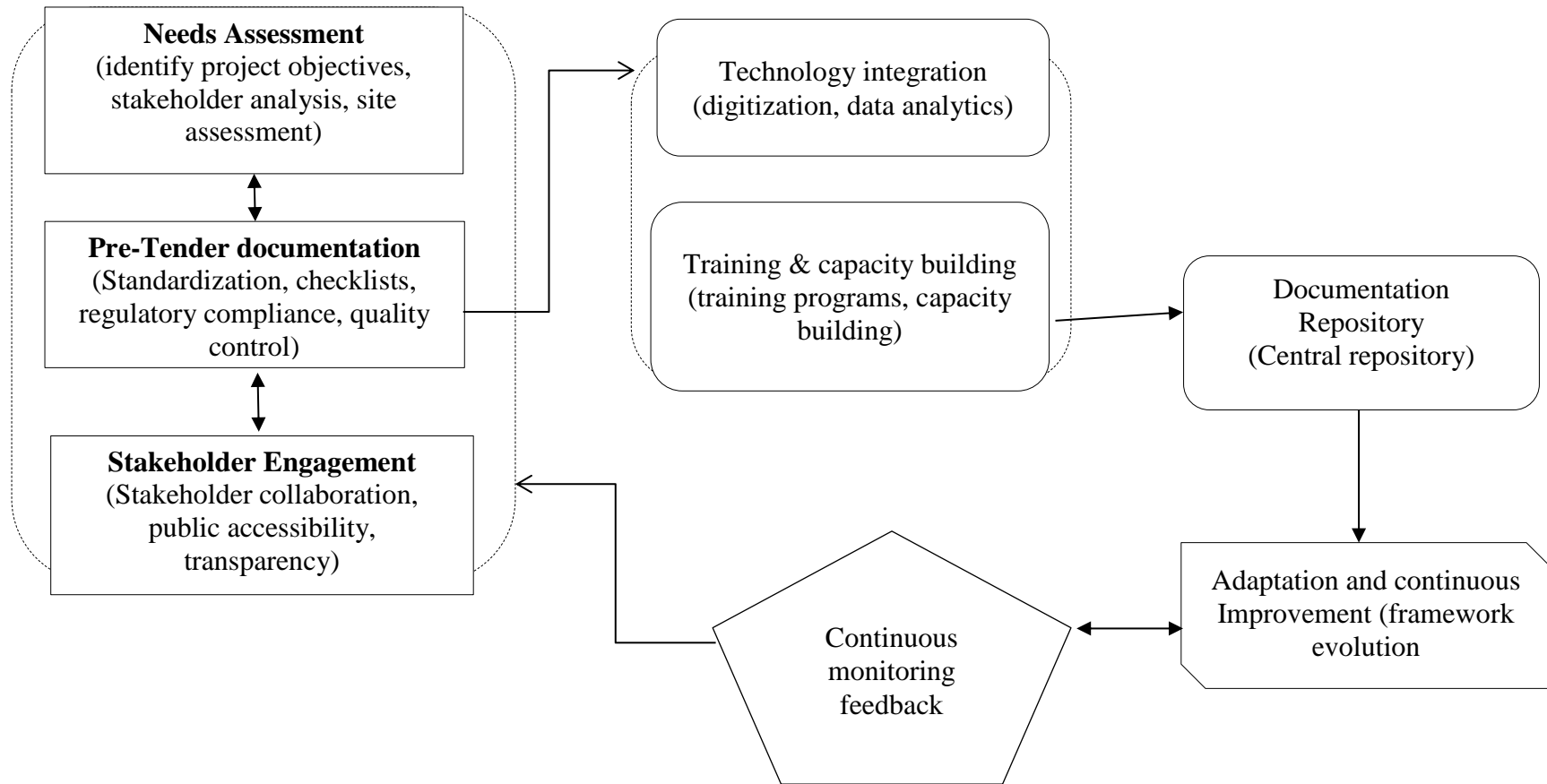


Figure 4.16: Proposed Framework for Improving Pre-Tender Documentation in the ESP Projects

Source: (Researcher, 2020)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The aim of this research was to evaluate pre-tender documentation in the ESP building projects for the purpose of improving performance of these projects. This was further broken down into specific objectives namely; to describe the adequacy of pre-tender documentation done by MoPW construction teams; establishing the effectiveness of construction teams in the process of pre-tender documentation in the ESP building projects and finally to formulate a framework for improving pre-tender documentation in the ESP building projects.

The research design applied was case study design where the spatial scope of this research study was limited to ESP projects in Thika East, Transmara East and Kasarani districts. Close ended questions and content analysis was used to collect data. The data was fed into SPSS for quantitative analysis and thematic analysis used for thematic data. This chapter comprises of the conclusions and recommendations derived from the interpretations of the data analysis results.

5.2 Summary of Findings

5.2.1 Objective 1: Adequacy of Pre-Tender Documentation by the MoPW Construction Teams

The Ministry of Public Works in Kenya provides pre-tender documentation to potential bidders or contractors before the official tendering process begins. This documentation is crucial for bidders to understand project requirements and prepare accurate bids. In the context of the Economic Stimulus Programme (ESP), key pre-tender documentation for construction projects includes Architectural plans, Bill of quantities and site analysis plans. However, the survey carried out revealed that not all projects had these documents available. Architectural drawings were primarily prepared by the MoPW headquarters in Nairobi and site analysis was lacking in the majority of cases.

The adequacy of pre-tender documentation is critical for the success and transparency of ESP building projects. It should meet criteria such as clarity, completeness, transparency, technical quality, alignment with project objectives, compliance with the regulatory framework, standardization, stakeholder involvement, and feedback mechanisms. The analysis suggests that the intensity of pre-tender documentation by the Ministry of Public Works for ESP building projects is minimal, which is concerning. Clear and comprehensive documentation is essential to prevent misunderstandings, disputes, and project delays. Continuous monitoring and improvement of the documentation process are necessary for the long-term success of the Economic Stimulus Programme.

5.2.2 Effectiveness of Construction Teams in the Process of Pre-Tender Documentation

Pre-tender documentation sets the foundation for projects and typically includes project specifications, drawings, cost estimates, and other essential information. Consultation with local communities before project design and construction is also vital. A survey indicated that the effectiveness of construction teams in the ESP projects was linked to their level of consultation with local communities, with only 21.4% of respondents stating that local communities were consulted. Consultation with local communities is an essential aspect of responsible and sustainable development. It allows teams to gather valuable insights into community needs and preferences, resulting in better project designs that meet community requirements. Projects that consider local input are more likely to be relevant and beneficial, leading to community acceptance and long-term success.

However, the survey results indicate low levels of satisfaction with ESP project results, suggesting several challenges: transparency and accountability issues; limited community involvement in project planning; weak monitoring and evaluation mechanisms; quality of project implementation; economic impact; communication and public awareness and political factors.

The survey results also evaluated the elements of ESP projects, including the siting of facilities, site analysis, construction works, speed of construction, and information

availability. Respondents found that the siting of facilities was generally poor, which can lead to inefficiencies, increased costs, and delays. Site analysis was poorly done, which can result in unforeseen expenses and delays during construction. Most respondents considered the construction works satisfactory, reflecting the positive impact of ESP projects on local economies. The speed of construction and its documentation were rated fair, with rapid construction considered beneficial for project success. Finally, information availability was considered adequate, enabling construction teams to make well-informed decisions during the pre-tender phase.

Overall, the survey results underscore the importance of effective pre-tender documentation, community consultation, and addressing challenges to ensure the success of ESP projects in Kenya.

5.2.3 Framework for Improving Pre-Tender Documentation in the ESP

Building Projects

To improve pre-tender documentation for Economic Stimulus Programme (ESP) construction projects in Kenya, a comprehensive framework is proposed. The initial phase involves clearly defining project objectives in alignment with ESP goals. It also includes identifying and engaging with all relevant stakeholders, such as government authorities, communities, contractors, and consultants. A detailed site assessment is conducted to understand physical characteristics, environmental factors, and potential challenges. A pre-tender documentation should involve standardization of templates and guidelines for pre-tender documents to ensure consistency in format and content across projects. Fostering collaboration and communication with all stakeholders is vital for feedback, concerns, and transparency. Implementing a user-friendly and accessible digital platform or portal ensures that pre-tender documentation is readily available to all interested parties.

Developing training programs for procurement officials, project managers, and relevant personnel to ensure a clear understanding of procurement regulations and best practices. Integration of digital technologies and software tools to streamline the documentation process, enhance accessibility, and improve data management.

Continuously evolving the framework based on changing project requirements, technological advancements, regulatory changes, and stakeholder feedback. Conducting regular audits and reviews of pre-tender documentation to identify areas for improvement and compliance with standards.

5.3 Conclusions

The following general conclusions were made from the summary of findings'

- 1) The first objective was to describe the adequacy of pre-tender documentation done by the MoPW construction teams while pre-tender documentation is crucial for bidders to understand project requirements and prepare accurate bids, the survey revealed shortcomings in the availability of key documents such as Architectural plans, Bill of Quantities, and site analysis plans. These inadequacies raise concerns about the clarity, completeness, and transparency of the documentation, which are essential for project success and transparency. The minimal intensity of pre-tender documentation by the MoPW is a noteworthy issue that necessitates improvement.
- 2) The second objective was to establish the effectiveness of construction teams in the process of pre-tender documentation in the ESP building projects. The critical factor influencing the teams' effectiveness was their level of consultation with local communities, which was found to be lacking in a majority of cases. Moreover, the survey evaluated various project elements, revealing concerns about the siting of facilities and site analysis while indicating satisfaction with construction works.
- 3) The third and final objective was to formulate a framework for improving pre-tender documentation in the ESP building projects. The proposed framework encompasses various critical aspects, starting with a thorough needs assessment, aligning project objectives with ESP goals and engaging relevant stakeholders. The standardization of templates, checklists, and quality control processes ensures consistency and completeness in pre-tender documentation. The integration of digital technologies streamlines the documentation process and facilitates data management. Continuous adaptation and improvement,

supported by regular audits and reviews, are emphasized to keep the framework responsive to evolving project requirements and stakeholder feedback.

5.4 Recommendations of the Study

In order to improve pre-tender documentation in the ESP building projects, the following recommendations can be made from this study;

- 1) **Enhance Pre-Tender Documentation Standards:** The Ministry of Public Works (MoPW) should prioritize the development of standardized templates and guidelines for pre-tender documents. This standardization should ensure consistency in format and content across all ESP projects. The inclusion of essential information, such as architectural plans, bills of quantities, and site analysis plans, should be made mandatory for all projects. This will promote clarity, completeness, and transparency in pre-tender documentation.
- 2) **Strengthen Stakeholder Engagement:** MoPW should significantly improve consultation and engagement with local communities throughout the project lifecycle. To increase the effectiveness of construction teams, a higher level of community consultation is crucial. Consider involving communities in project planning, seeking their input, and addressing their concerns. This will lead to more relevant and beneficial project designs, enhancing community acceptance and long-term success.
- 3) **Implement Comprehensive Monitoring and Evaluation:** Establish robust monitoring and evaluation mechanisms to assess project performance and adherence to project objectives. This should include regular audits and reviews of pre-tender documentation. The results of these assessments should guide continuous improvement efforts. Address issues related to transparency, accountability, project implementation, and economic impact. By identifying and resolving these challenges, projects can achieve better outcomes and enhance public satisfaction.
- 4) **Leverage Digital Tools and Training:** Invest in digital technologies and software tools to streamline the documentation process, enhance accessibility, and improve data management. Additionally, provide training programs for

procurement officials, project managers, and relevant personnel to ensure a clear understanding of procurement regulations and best practices. This will equip the teams with the necessary skills to handle pre-tender documentation effectively.

5.5 Areas for Further Research

The following areas are suggested for further study:

- 1) More research could investigate the specific impact of standardized pre-tender documentation on project outcomes, including cost control, project timelines, and the reduction of disputes and delays. Analyzing projects that have implemented standardized documentation compared to those that haven't can provide insights into the effectiveness of these improvements.
- 2) Further research can delve into effective strategies for community engagement in project planning and design. This can include case studies that showcase successful community involvement and its impact on project success. Analyzing different community engagement methods and their outcomes can provide valuable lessons for future projects.
- 3) Research may explore the optimal ways to integrate digital technologies and software tools into pre-tender documentation processes. This can involve examining the impact of various tools on data management, accessibility, and the efficiency of the documentation process.
- 4) Investigate how well the proposed comprehensive framework for improving pre-tender documentation adapts to evolving project requirements, technological advancements, regulatory changes, and feedback from stakeholders.

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