

**STAKEHOLDER PARTICIPATION AND IMPLEMENTATION OF ROAD
CONSTRUCTION PROJECTS IN KENYA. A CASE OF CLASS C ROAD
GITHURAI-KIMBO ROAD PROJECT IN KIAMBU COUNTY**

BETHUEL FAYISA BALATE

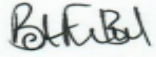
**A Research Project Report Submitted in Partial Fulfillment of the
Requirement for the Award of Degree of Masters of Arts in Project planning
and Management of the University of Nairobi**

2022

DECLARATION

I hereby attest that the research project I have been working on is completely and wholly my own original work, and that it has never been submitted for assessment at any college, university, or other institution of higher learning in the past.

Signature



Date: 3/11/2022

Bethuel Fayisa Balate

Reg. No: L50/33172/2019

This research project has been handed in for evaluation, and as the University supervisor, I have given my consent for its submission.

Signature:



Date: 1/11/2022

Prof. Harriet Kidombo

Department of Business Administration Faculty of Business and Management Science

University of Nairobi.

DEDICATION

To my parents Samuel Balate and Martha Guyatu and my good friend Gerald E Kclecker, I dedicate this research.

ACKNOWLEDGEMENT

I want to express my gratitude to the All-Powerful God for bestowing upon me the fortitude, intelligence, and ability to successfully accomplish this study assignment. I am very grateful to Prof. Harriet Kidombo, my supervisor for her good advice as my supervisor and her successful supervision, dedication, accessibility and professional counsel. I express my thanks to my lecturers who have helped me at the Faculty of Business and Management Sciences which improves my research with their expertise. Notably I would like to thank Dr. James Mushori, Prof. Charles Mallans Rambo and Prof. Christopher Gakuu for their guidance during my proposal defense.

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ABSTRACT

When a road transportation infrastructure project is successfully completed within the parameters of the conventional iron triangle, it is regarded as a success. Problems with functionality might have been caused by a poorly executed road construction project. Third-world countries' road construction firms face a variety of challenges, including problems caused by shortages in the infrastructure, consultants related challenges and clients, and finally, contractor's incompetence. The study's goal is to determine the impact of Kenyan road development projects' stakeholder engagement. Kiambu County's Githurai-Kimbo road project has been examined in this case study. Resource mobilization, decision making, communication framework and human capital were specific objectives of this investigation; it was also determined that decision making, resource mobilization, communication framework and human capital had a significant effect on implementation of road construction projects in Kiambu. Project management theory, stakeholder theory, and triangle project theory were all used in this research. The study's intended audience consisted of 100 project contractors and consultants from KURA and the Githurai-Kimbo road project. To ensure a representative sample, a census survey will be employed, and every one of the 100 replies will be included. Stratified random sampling as well as selective sampling was both used in this study. Study equipment included both an interview guide and a semi-structured questionnaire. SPSS was used to data coding and analyses. The arithmetic averages and the standard deviations were considered for the analysis of the descriptive statistics. The statistics were shown via the use of tables of frequency and percentages. It was important to notice similarities and contrasts that arose from the interviews as they were transcribed. Additional information gathered from published books, scientific dissertations and peer-reviewed journals will be supplemented by actual data obtained from the original sources. Inferential statistics were studied with the help of Pearson's Correlation. The study found that resource mobilization has an effect on the road construction project implementation. Successful road building is also influenced by the quality of decision-making. Road construction projects are affected by the structure of communication. According to the findings, road construction projects benefit from having enough human resources. As a result, the study's findings suggest that Kiambu's national and county governments establish legislation to ensure that road development projects are carried out efficiently and include stakeholders in the process. It is vital that all stakeholders be educated about the significance of the project and actively participate in determining its goals, mission, and purposes in order to guarantee that the project will perform at a high level. This will ensure that the project is successful.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Infrastructural developments such as new roads, bridges, or buildings may be used to gauge economic progress. In order to fulfill the aims of expanding job possibilities, reducing levels of poverty, and stimulating economic development, it is important to construct a road network that is in excellent operating condition and put it into operation (Anaman & Amponsah, 2017). In addition, the poor execution of projects has been a characteristic of many projects, and developing nations often have a low supply of public goods. Apart from the funds provided by World Bank for various projects around the world, several governments provide constituency development fund to be used to improve development at the constituency level. A fund that is comparable to a CDF has been around for a significant amount of time in the Philippines, although in a number of different iterations. This fund, known as the Priority Development Assistance Fund (PDAF), is money that is given to members of congress with the goal of being used for the development of various types of infrastructure projects.

A flexible, demand-oriented approach built on CBM (Condition Based Maintenance) has been adopted by the project planners in an effort to deal with the problems (Khwaja, 2014). It is possible that community initiatives function successfully in certain developing countries like those in Latin America and Asia; nevertheless, the outcomes are still not encouraging in Sub-Saharan Africa (Atiibo, 2012). It is necessary for road users to take part in resource mobilization, communication, decision-making, and labor supply functions when using a community project management model (Bernstein, 2019). Community resource mobilization is the quantity of money, goods, and labor individuals provide in return for services and is connected to a project that responds to demand. According to research that was conducted on the topic of the connection between community resource mobilization and the construction of roads, a demand indicator in a demand-responsive approach is the role that community resource mobilization plays (Callahan, 2017).

Stakeholders are interested in the project's result. It may be a stake, a right, or even ownership of something. When it comes to rights, they may be either legal or moral ownership (Carol, Cohen, & Palmer, 2014). Through effective communication of relevant messages, stakeholders benefit from having their expectations recognized and handled while also ensuring that stakeholders understand the assistance that road construction project need from them. By involving project stakeholders in labor provisions, mistrust in the project's process or result may be reduced, commitment to the project's goals and procedures can be increased, and the project's completion can be given more credibility. A correlation was thus found between stakeholder involvement in labor provisions and the success of road construction project in Japan by Nobeoka & Cusumano (2018).

According to Fapohunda and Stephenson's (2010) research in the United Kingdom (UK), the construction industry's financial, time, and quality goals are at odds. The authors also emphasized the need of knowledge management for project managers, including project time management, which entails establishing a realistic project timeline and following through with project delivery. It is important for contractors to provide a fixed price, a guaranteed date, and a facility under the Effective Engineering, Procurement, and Construction (EPC) contract, according to Morgeson, Mitchell, and Dong (2015). It also has to be done at the specified level. According to the findings, if a contractor does not meet these requirements, they will be held financially liable.

According to Al-Kharashi and Skitmore (2014), a shortage of skilled workers is the primary reason for building delays in Saudi Arabia. For example, poor planning, poor site management, a lack of experience, and insufficient financial resources on the client's part all contribute to delays in the Malaysian construction industry. Delays might also be attributed to problems with contractors, a breakdown in communication between the parties involved, or mistakes made during construction.

In Gaza Egypt, Tayeh, Al Hallaq, Alalu and Kuhail (2021) established an approach for the quality, safety, conflict over sites and environmental impact assessment. These metrics are considered significant road construction Implementation indicators. This research did, however,

not address the right component for achieving the above-mentioned KPIs. It is essential to identify these variables in order for project managers to concentrate their efforts on particular issues. Furthermore, Ngacho and Die (2013b) have established 6 CSFs (Critical Success Factors) based on six KPIs of development project encompassing projects, advice and supply chain associated environmental issues and external environmental considerations.

Avots (2011) investigated the issues impacting Ghanaian contractors and consultants and discovered that the difficulties faced are similar to those reported in studies on the construction industry in other third-world nations generally. Since project management is only getting started, it benefits everyone involved to think about every possibility that might affect the construction of a project. In fact, the idea behind EPC contracts was created with the express purpose of transferring most of the dangers inherent in carrying out construction projects to the contractor. Many times, the only time a contractor may demand more money is if the project company has delayed the contractor or mandated a change in the operations (Ngacho & Die) (2013).

Road construction in Kenya's transportation sector is booming, thanks to the country's robust economy. GDP and GDCF (Gross Domestic capital Formation) contribution from this sector, as well as job creation and the production of capital facilities and assets needed by other industries, are all critical for economic development. It also depends on demand for their products (UNCHS, 2017). Construction of roads has a significant impact on transportation, and this is especially true in metropolitan areas (Otim, & Alinaitwe, 2011). Kenya's road construction industry is growing in size, complexity, interdependency, and variation in client demands. As of 2009, road expansion and upgrade programs accounted for more than half of Kenya's road spending, according to the Kenya Vision 2030. Due to the size, nature, and anticipated future growth rates of Kenya's road network, there is an urgent need for road infrastructure investment that much surpasses the country's budgetary funding capabilities.

Kiambu is a County in Kenya's old Central Province. Kiambu's capital is Kiambu, but the County's biggest city is Thika. Kiambu County, which shares a border with Nairobi and Kajiado Counties to the south, is 40 % rural and 60 % urban as a result of Nairobi's steady expansion northward. The Kikuyu are the county's most populous ethnic group. The interests and power of shareholders are crucial in the decision-making of a company since they may have a detrimental or positive effect (Arain and Assaf, 2013). Participation in activities that directly influence one's daily life is both a duty and a right for citizens. Stakeholder participation is important since it

aids in project planning and execution as well as decision-making. Since stakeholders were involved in making choices on how to enhance the implementation of these projects, they must be included in road construction project.

1.2 Statement of the Problem

The construction of Githurai-Kimbo Road project started in April of 2019 and was averaget to be complemented in December of 2020, at a contract price of Ksh5.689 billion, (KeNHA Report, 2020). According to the same report, a variation order instructed by KeNHA increased the contract price from Ksh3.689 billion to Kshs5.405 billion and revised the approved completion period from December 2019 to May, 2020. In August 2020 and 5 years down the line, the road construction is still underway. CNATIE Report, (2020) cited various project challenges, which include disputes with community group on extraction of construction materials from their land and demanding exorbitant prices for hiring of material sites, increase of scope of works, delayed payments to the contractor, disrupting work progress, among others, that adversely affected the road implementation.

When studies are conducted in construction, the focus is on project implementation yet it would be stated as project implementation; this becomes a conceptual issue that this study aimed also to investigate and spell out clearly indicators for measuring implementation. Both outright project abandonment and poor project execution are largely attributed to lack of technical expertise on various projects (Abiodun, Segbenu & Oluseye, 2017). Factors contributing to construction delays and post-delivery implementation as listed by Faridi and El-Sayegh (2006) include poor leadership, outdated equipment, insufficient oversight, a dearth of necessary equipment, terrible site administration and shortage of skilled manpower. In Kenya, two studies by Seboru et.al, (2016) and Seboru, Mulwa, Kyalo, and Rambo (2016) examined how the purchase of materials and the hiring of labor affect the quality of road infrastructure implementation, taking into consideration the emergence of potholes and cracks within a few months or a year after construction.

When implementing Implementation road construction project in other counties, the emphasis has been on success variables that influence execution, not on Kiambu County's own private construction projects (Muturi & Oguya (2016); Njogu, (2015), Alalou & Kuhail, 2021). This creates a conceptual gap that the current research strives to address. The research investigated the

role of various stakeholders in the development and execution of road building projects in Kenya. A case study of Githurai-Kimbo road project in Kiambu county.

1.3 Purpose of the Study

The study's purpose was to investigate the influence of Kenyan stakeholder participation on road construction project implementation. A case study of class c of Githurai-Kimbo road project in Kiambu county.

1.4 Objectives of the Study

The study was guided by the subsequent objectives:

- i. The goal of this study is to ascertain the impact of resource mobilization on the actualization of road building projects in Kiambu.
- ii. To evaluate the impact of decision-making on the actualization of road building initiatives in Kiambu.
- iii. To determine the role that a unified framework for communication plays in the successful completion of road building projects in Kiambu.
- iv. To determine the role that human capital plays in the successful completion of road building initiatives in Kiambu.

1.5 Research Questions

The study's purpose was to discover answers to the listed research questions:

- i. What kind of an impact does the collection of necessary resources have on the successful completion of road building projects in Kiambu?
- ii. How does the process of decision making affect the actual building of roads and other infrastructure in Kiambu?
- iii. How does the communication structure affect the process of putting together road development projects in Kiambu?
- iv. What impact does the availability of human capital have on the process of putting together road construction projects in Kiambu?

1.6 Research Hypothesis

1. H₀: There is no substantial correlation between the gathering of resources and the execution of road development projects in Kiambu.
2. H₀: There is not a strong correlation between the making of decisions and the actual carrying out of road development projects in Kiambu.
3. H₀: There is not a strong link between the communication structure and the execution of road development projects in Kiambu.
4. H₀: There is no discernible link between the availability of human capital and the execution of road building projects in Kiambu.

1.7 Significance of the Study

This research examined the relationships between the different stakeholders participating in Kiambu County's road development initiatives. Public and private enterprises are both included in this group. Kiambu's professors would do well in their jobs if they had a deeper understanding of what makes road building projects effective. Over the course of its history, Kenya's road building sector has seen significant growth in terms of size, complexity, interconnection, and the breadth of customer needs.

The study findings enabled policy makers on enabling provision of quality construction services. Construction works that are of low quality can lead to monetary losses because value delivered is less than amount paid due to reduced lifespan of the construction and are also a danger to human life. In establishing rules and processes, the Kenya Urban Roads Authority found the study, strategies, and regulatory and legislative frameworks that guided the construction industry. Kenya's policies, strategies, and regulatory frameworks enabled the country to meet Vision 2030's overall goal of increasing the construction industry's annual GDP contribution by at least 10% and turning Kenya into Africa's industrial hub while also raising the country to a middle-income status.

It is hoped that the conclusions of this research would aid contractors, developers, construction managers, and building owners in their attempts to enhance road construction projects. Its feasible that employing study findings, job losses, increases in expenditures, budget overruns, and poor investment returns might be avoided.

1.8 Assumptions of the Study

Accordingly, participants were expected to be open, honest, and eager to engage in the research. These assumptions are the foundation of our investigation. Stakeholder engagement in resource mobilization and decision-making, as well as public communication, are factors that influence the success of Kiambu County's road projects.

1.9 Limitations of the Study

The sole kind of data used was primary data, which was gathered by conducting interviews with individuals and collecting their replies using questionnaires. It was the goal of the study not to instill fear in participants while they gathered data, so that they would be more likely to cooperate. Consequently, respondents may be hesitant to disclose the data requested. It was possible for the study to get around this limitation by informing all participants that their views were taken into consideration in academic discussions. Additionally, an introduction letter explained the study's purpose as being for educational purposes as part of the research. During the time that we were out in the field collecting data, it was quite probable that the participants were extremely preoccupied with their regular activities. As a result, data collection could not be completed in a single day. As a result, participants in the study were given questionnaires to complete and return. After respondents filled out the surveys, the researcher made a note of their names, addresses, and phone numbers. This data was useful for following up with respondents to find out whether they've run across any difficulties or hurdles while completing the questionnaires.

1.10 Delimitations of the Study

Stakeholder involvement in road building project implementation examined as part of the research. The research focused on resource mobilization, decision-making, communication frameworks, and human capital in relation to Kiambu County's road-building implementation, in particular. Kiambu County will be the subject of the investigation. The study was expected to take place within the University of Nairobi 2021/2022 academic calendar year. A concurrent mixed methods approach will be used for the study as this enabled a comprehensive analysis of data will be gathered in the field.

1.11 Definition of Significant Terms Used in the Study

Communication Framework: Tool for planning exchange of information from a sender to a receiver to build a better understanding within the stakeholders in a project in which an agreed communication medium is used where stakeholders and the project team can send messages and obtain feedback.

Decision making: Affected individuals or organizations are those whose lives or activities may be impacted, whether favourably or unfavourably, by the interventions contained in package. Research will focus on Kiambu citizens and project authorities as a consequence of this specific case.

Human Capital: these are the personal attributes or qualities associated with members of project management committees, in this study they include technical orientation, evaluation and monitoring capabilities of the management committee.

Implementation of road projects: Projects are employed universally, in businesses that are for profit as well as those that are not for profit, as a way of arranging activities with the ultimate goal of reaching specified aims.

Resource mobilization; Project resource mobilization refers to financial and non-financial supports like infrastructure for road construction projects

Stakeholder participation: Stakeholder engagement refers to the practice of allowing individuals who have a vested interest in the success of a project such as a road building) to have a hand in shaping its direction and shaping the project's outcomes themselves.

1.12 Organization of the Study

The study's background, problem description, aim, goals, and research questions are all included in the first chapter. There are five sections to the research. First, we'll go through the study's importance as well as its limits, fundamental assumptions, and key terminologies. For example, resource mobilization and road construction implementation are discussed in the second chapter. Other topics covered include decision-making and road construction project implementation, a communication framework for project implementation in road construction, human capital for project implementation in road construction, and explanations of the theories that guided the

research. Study design and target population are discussed in detail in the third chapter as well as sample size and process, data collecting technique and data analysis methodologies, instrument validity and reliability and variable operationalization.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The purpose of this section is, in part, to identify potential knowledge gaps by reviewing the relevant literature on a variety of topics that bear upon the study's conclusions. Stakeholder theory, project management theory, and the triangle project theory were among those studied, as well as other related theories. Summary of literature and research needs are given for conceptual framework.

2.2 Implementation of Road Construction Projects

The term "project implementation" refers to the steps taken to put a project plan into motion and produce the final goods or services that will be used by the target audience (Kimani, 2016). It's probable that factors such as having access to sufficient resources and the level of expertise possessed by the project's management had a role in determining whether or not the project was carried out effectively. Project is a non-repetitive, difficult, and one-time undertaking that is constrained by money, time, and assets as well as anticipated Implementation criteria designed to satiate the wants of customers. In order to accomplish a certain goal, or ultimate result, many projects are put into action. Resources are used, and the tasks must be completed by a specified date while meeting certain quality criteria. According to the Project Management Institute (PMI, 2013), an organization's ability to continue existing and even succeed is significantly impacted when it is unable to successfully complete projects within the allotted timeframe, adhere to financial plans, and most importantly, accomplish their goals.

A construction project is normally accomplished via an aggregate of several interactions and events, premeditated or instinctive, throughout project lifeline, with dynamic players and procedure in ever-dynamic ecosystem (Babu & Sudhakar, 2015). According to Chitkara (2005), construction projects are viewed as high-worth, time-specific, as well as special-purpose construction missions with defined expected output. Kenya has massively invested in road infrastructure projects since the launch of the 2003-2007 plan of recovery. The government of Kenya took cognizant of the fact that the country lacked professional competency or manpower;

hence, the Engineers Registration Board was tasked with updating its register to get rid of errant engineers (GOK, 2003). According to Wanzala (2017), Kenya has a paltry 2,100 certified engineers serving 45 million persons, this being against the expected 6000 minimum.

Substandard construction projects have turned into an economic crisis that the industry is unable to handle, and the key players in the sector have no clue how to chronicle the difficulties for future generations. The output-to-input ratio, according to these writers, is a more precise measure of productivity. However, the writers have defined Implementation as a generic notion that encompasses both economic and industry-specific operational characteristics of a corporation. Operations excellence involves profitability and productivity, but also a wide range of other qualitative traits like delivery and flexibility, quality, and speed.

Descriptive research was used by Gathoni (2016) for his paper titled "drivers of effective projects implementation, a case of Projects Funded by CDF in Kiambu County." Kiambu County is the location of this investigation. Factors such as managerial skills, stakeholder participation, the presence of regulations, and resource availability were analyzed. Success of CDF initiatives in Kiambu County was shown to be significantly correlated with the previously identified research parameters. As a result of insufficient training for project managers, an ineffectual regulatory environment, the lack of participation from key stakeholders, and a lack of available funds, the research found that project Implementation was negatively impacted.

Baccarini (1999) describes project implementation using two separate success models. The effective completion of a project depends on striking a balance between the two factors of quality and cost. Measurement criteria include cost, timeliness, and adherence to both operational and technical standards, to name just a few. Successful projects must demonstrate that they are capable of meeting the aims and objectives defined by the many stakeholders involved in order to be considered a success. Several safety road implementation metrics were identified by Onatere, Nwagboso, and Georgakis (2014) as part of a research on urban transportation development in Nigeria. There were potholes on the road, damaged or collapsed bridges, a lack of traffic signs and laws, and a car crashes account for a disproportionately high number of fatalities and serious injuries. Lack of customer satisfaction is prevalent across the Nigerian transportation sector, with the public transportation system being particularly affected. Customers' (road users') happiness may be gauged using a variety of key Implementation

indicators (KPIs), including the entire travel experience, ride comfort, customer contentment with the road network, client satisfaction with project outcomes, complain percentage, and trip cost, complaints handling, and effective complaints resolution. After a project has been finished, its outcomes can be evaluated to determine how successful they were. This research looked at the efficiency of road construction project. Research on project implementation in Kenya has often utilized project completion indicators to describe or define what it averages to be successful, but that would make more sense when project success was employed.

2.3 Decision Making and Implementation Road Construction of Projects

Akali and Sakaja (2018) discovered that project failure was strongly linked to the method of execution used in Kenyan projects. An implementation strategy for project management may be used to create a framework that is especially intended to help project managers in setting up and managing the various phases of the activity and attaining project goals. According to the results of the study, Kenyan initiatives performed better when the project design technique was used. As an additional recommendation, it was said that companies should be more dedicated to achieving better results from the project's design approach. Hand in Hand East Africa, surveyed 62 of its employees using descriptive questionnaires in Kiambu County. SPSS 20.0 was deployed in the analyses of gathered by a structured questionnaire and stratified random sampling. Road construction projects rather than community activities are the focus of this study to fill a knowledge gap.

An evaluation of stakeholders' participation in decision-making was performed by Atibu (2015). When stakeholders are involved, a formal decision-making process may become bureaucratic, which can have a variety of negative repercussions on the business. The study's 220 participants were polled by adopting descriptive approach. Data were analyzed by SPSS, which was contracted by the researcher so as to collect a representative sample of the community as a whole. An inquiry is underway to address this gap by concentrating on additional aspects that impact the Implementation phase of a project as a consequence. Decision-making management abilities have been linked to successful road projects in Kenya by Walubengo (2019), who conducted a stakeholder analyses, Grant charts, a logical methodology and a problem-tree analysis. As a result of the association between project design tools and successful road projects, he proposed a strategy that encompassed project design in full. That's because they've established

a connection between the two. Research was done using a descriptive technique with 192 employees (excluding project managers) as a target sample, and respondents were given questionnaires using stratified random sampling. Project management provided a plethora of valuable information via in-depth discussions. Rather of concentrating on the actual Implementation of road building, this study aims to remedy a current gap by focusing on the decision-making process.

Building roads in Kenya enhances project Implementation when stakeholders' perspectives are included in the planning phase, according to a research by Louis and Dunston (2016). As a result, project managers must devise stakeholder analysis tools that aid them in finding the best possible project stakeholders with whom to cooperate. The process of identifying and assessing various stakeholders, as well as planning for their involvement, is referred to as the stakeholder analysis. The questionnaires were utilized to gather data, and samples were drawn using random and stratified sampling was employed to draw the samples. Githurai-Kimbo Road was not reviewed since the purpose of this research was to improve roads in Mombasa, Kenya; this gap is what this investigation is trying to fill.

2.4 Communication Framework and Implementation Road Construction of Projects

According to Mugo (2018), in Nairobi County, Kenya, organizational communication influences project Implementation in road building. The variables were communication framework, communication culture and communication management strategies. Research has shown that the right communication channel enables information to be passed on to the right audience and thus increases trust and teamwork. Research has suggested that communication roles should be provided from construction work within the project life plan to avoid overlapping roles. Questionnaires were employed to collect data in a descriptive study approach. Correlations and multiple regressions were carried out using SPSS Version 20.0 while analyzing the data. A gap in the communication structure for the Kiambu County Road development project's implementation was exposed by the previous research. The study's emphasis was on communication for local initiatives, but it didn't look at how to get roads built.

Lee-Kelley & Sankey (2016) observed that time-sharing and cultural differences severely affected group communication and relationships within the projects, and they recommended that

businesses develop methods to alleviate the problems of remote work. The qualitative research used a case study approach to assess how project teams worked together, with data obtained through semi-structured interviews. There was no prior research that looked at the impact of communication on project results during road building, therefore this new research will fill in that gap.

According to Dziekonski (2017) in his research on the elements impacting communication in project teams, communication planning is a critical responsibility for project managers. However, the examination of the communication process and its components might provide some valuable insights. In order to gather the information required for this inquiry, descriptive research techniques such as semi-structured interviews and questionnaires were employed. This research used multiple regression for analysing data gathered, and it included 25 construction project managers as participants. The authors of this research set out to rectify the shortcomings of a previous investigation on this issue that focused solely on building projects in India.

Njiru (2018) investigated manufacturing company project management methods and execution in Nairobi, Kenya. He stated that project success is primarily determined by how it is handled and managed. With a target population of 49 manufacturing companies, a descriptive study approach was applied in collecting data from 294 respondents via questionnaires while stratified random sampling to ensure all cases were represented. According to the findings, there is a connection between communication and project execution, and it is essential to ensure the implementation of capital expenditure projects to maintain communication lines open and accurate with all stakeholders. The backdrop of project success in road construction was left out of previous research on capital expenditure projects in manufacturing enterprises in Nairobi County, which is a hole that this study seeks to remedy.

2.5 Human Capital and Implementation Road Construction of Projects

Research by Walubengo (2019) found a correlation between project implementation and management skills, using approaches such as grant chart, issue tree, stakeholder analyses, an issue tree. According to his advice, community initiatives in Bungoma County should take the

experience of project managers into account (Kenya). Data from 192 employees (excluding project managers) was analyzed using a descriptive research approach. Data from the project managers was obtained through doing interviews. The study focused on project design tools for community project Implementation but failed to address implementation road construction of projects a void that is aimed to be filled in this study.

Maalim & Kisimbii, (2017) in their Study Influence of human capital in Project Implementation in Counties, the Mombasa County case, Kenya, established that projects have not met their intended objectives perhaps due to lack of human capital. For the purpose of data collection, the descriptive study design used 271 participants, as well as a questionnaire; SPSS version 22 was utilized for the analysis of the collected data. Participants need involvement, capacity building and adequate funding for activities according to the study. However, the rate of variance was considered only in the two provinces of human capital presence or absence and therefore no participation rates were considered a gap that this study aims to address.

Onyango (2017) wrote a paper titled Assessing the Effectiveness of human capital in County Government Project Implementation: using Kirinyaga County in Kenya as a case. The investigation reported that that participatory planning at the project initiation phase is critical during implementation since it provides a platform for the integration of all components of monitoring and evaluation. Analyses of the information obtained via the use of a descriptive study design and a questionnaire were carried out with the assistance of stratified random sampling and SPSS Version 20.0. Because human capital data is important in planning strategically for regional development projects, the study recommends that the human capital be organized through a participatory process at the beginning of the project. The study focused on county government projects and failed to address Implementation road construction of projects a gap that this study aims to fill.

Using a hybrid DEMATEL-ISM methodology and a case study of Iran, Shakeri and Khalizadeh (2020) determined that effective project management and the timely dissemination of relevant information to all parties involved are crucial to the completion of any given undertaking. In order to collect data, questionnaires were employed, and then content validity was evaluated in

order to ascertain whether or not the variables that were found were statistically significant. In light of human capital's significance to project implementation, the study suggests that the project manager's understanding of the significance of these factors be bolstered. Human capital in projects in the Kenyan context was not addressed in the research, which concentrated on project managers working on megaprojects to develop oil and gas power plants in Iran.

2.6 Theoretical Framework

A theory was developed to detect, develop and understand some phenomena and, in other cases, to question current understanding of this underlying premises. A theory involves numerous ideas and current methods utilized in a specific subject (Saad & Siha, 2000). The theories covered in this research include stakeholder theory, project management theory and the triangular project theory.

2.6.1 Stakeholder Theory

Freeman's (1984) stakeholder theory encourages managers to take into account the needs and priorities of everyone involved in a project or business, both within and outside the organization. Since we identified and defined the numerous stakeholders in our OVC projects, we can link this to our results. The concept is to address the question of who or what is most significant in a specific endeavor. The owners or shareholders of a company are traditionally its most important stakeholders, and the company has a contractual fiduciary responsibility to put their interests first in an endeavor to maximize shareholder value (Freeman,2013).

According to the stakeholder theory, a company can only be regarded successful if it provides value to the majority of its stakeholder groups. A single role for the company, according to Sundaram and Inkpen (2004), makes it simpler for managers to navigate the claims and duties that are put on their shoulders. According to Freeman, a project's success depends on the satisfaction of all stakeholders, not simply those who stand to benefit from its stock. To understand how to create money in company, this theory said that stakeholder ownership is a powerful strategy to increase efficiency, profitability as well as success in the economy and competitiveness (Freeman, Harrison, Wicks and Parma 2010).

According to this view, all parties are crucial in this investigation. According to the stakeholder hypothesis, there are a variety of different parties involved, including, but not limited to, trade unions, trade association, political groups, communities, financiers, suppliers, customers employees and government authorities, to mention just a few. Even rivals may be considered stakeholders, according to Friedman and Miles (2014), because of their ability to influence the company and its stakeholders. According to stakeholder theory, this research will identify and include all of the stakeholders involved in the development of roads in Kiambu, including residents, administration officials, local leaders, and non-governmental organizations.

2.6.2 The Transformational Theory of Project Management

This study will also be anchored its variables to transformational leadership as postulated by Avolio and Bass (1998). The theory is concerned with inspiration and motivation of people to accomplish tasks and change the situation. Transformational leadership is anchored on charisma of the leader to inspire the people he/she influences to do the best they can with the available resources within their disposal. This theory is an improvement to a host of other leadership theories that include contingency theory, trait theory, behavioral leadership theories and the transactional leadership theory. This transformative function requires more coordination in the management of projects towards the desired end result.

The theory's premise is that leaders use impression management to promote their own moral character. It is difficult to teach or train on since it incorporates a variety of different philosophies. Leaders have the ability to influence their subordinates. But most of them have the opportunity to either gain or lose. A leader's team or organization may suffer as a result of this philosophy, which has its own set of drawbacks. If followers are to remain loyal and productive members of a team or organization, Bass and Riggio (2006) contend that transformational leadership is more appropriate in today's complex work environments, where followers are looking for a leader who can inspire them as well as challenge and empower them.

This study examines the transformational project management theory as a framework for road construction project execution, short-term planning, implementation, and control (Curlee & Gordon, 2010). Building projects are transformational endeavours that develop new capabilities

to improve Implementation, efficiency, security, and, in the end, revenue. The execution of the building projects is often driven by urgent procedure and has a strong reason for action. It is usually capital intensive and has a considerable effect on the economy of a country. In order to accomplish these strategic advantages and goals, the execution needs central coordinated management and usually includes numerous activities requiring prioritisation, sequenced and coordination (Stoffers & Mordant2015). Many parties are engaged in implementing building projects including investors, public authorities, consumers and advisors; architects, quantity surveyors, engineers, sociological and environmental specialists.

2.6.3 The Theory of Project Triangle

Atkinson (1999) is credited as being the one who first proposed this notion. To be effective, projects must have clearly stated goals that are tied to time, money, and quality criteria. Tracking the project's development by checking whether it adheres to specs is an important part of this strategy. It does this by focusing on making the most of the few resources that the organization currently has. Cost overruns must be avoided at all costs, thus projects must address the need of staying within the authorized budget. In addition, initiatives need to underline how important it is to stick to the timeline that has been established by the business. The project triangle highlights the necessity to maintain a healthy equilibrium between these three core goals since any laxity or non-adherence would result in the delivery timeline for the project being disrupted (Lock, 1996).

No matter how well-executed these projects may have been from a managerial point of view, however, the theory assumes that the stakeholders who used these three limitations as measurement targets for measuring project success have experienced an almost unlimited number (Shinobi 2011). A project's Implementation must be assessed from a more holistic perspective since TCQ can only assess the project's success based on its budget, timeline, and a certain desired quality. The fact that their values are calculated at a stage in the project when there is so little information available that the estimates are nothing more than educated guesses presents yet another fundamental issue with the Theory of Project Triangle. A new technique of evaluation will take into account both the degree of contentment experienced by stakeholders as well as criteria that are applicable after the execution of the plan.

Considering how important it is to balance all three aspects of price, quality, and deadline in order to finish a road construction project on time and within budget, the concept of the project triangle is relevant to the question at hand. The duration of a building project might have an impact on the final product's quality (Ebbese & Hope2013). Even though many jobs may take a long time to complete, they may be accomplished to an incredible degree if enough time is given. In building projects, quality may affect both time and cost, or the other way around. More than a hundred thousand records dating back to 1970 were utilized in Pollack, Helm, and Adler's (2018) investigation into how the concept of the Iron Triangle could have developed over the course of forty-five years of research on project management. This investigation was carried out over the course of a period that spanned from 1970 to 2018. It is the authors' contention that the methods used in research in the U.k, Canada, and the United States warrant the bulk of the debate.

2.7 Conceptual Framework on Stakeholder Participation and Implementation of Road Construction Project

"A plane" or a system of linked ideas or concepts is what Rocco and Plakhotnik (2009) define as a conceptual framework, and it is what we use to explain events and phenomena. As a conceptual framework, these notions help each other describe their own phenomena, and they give an outline-explicit point of view. It demonstrates the connection between the variables.

2.8 Conceptual Framework

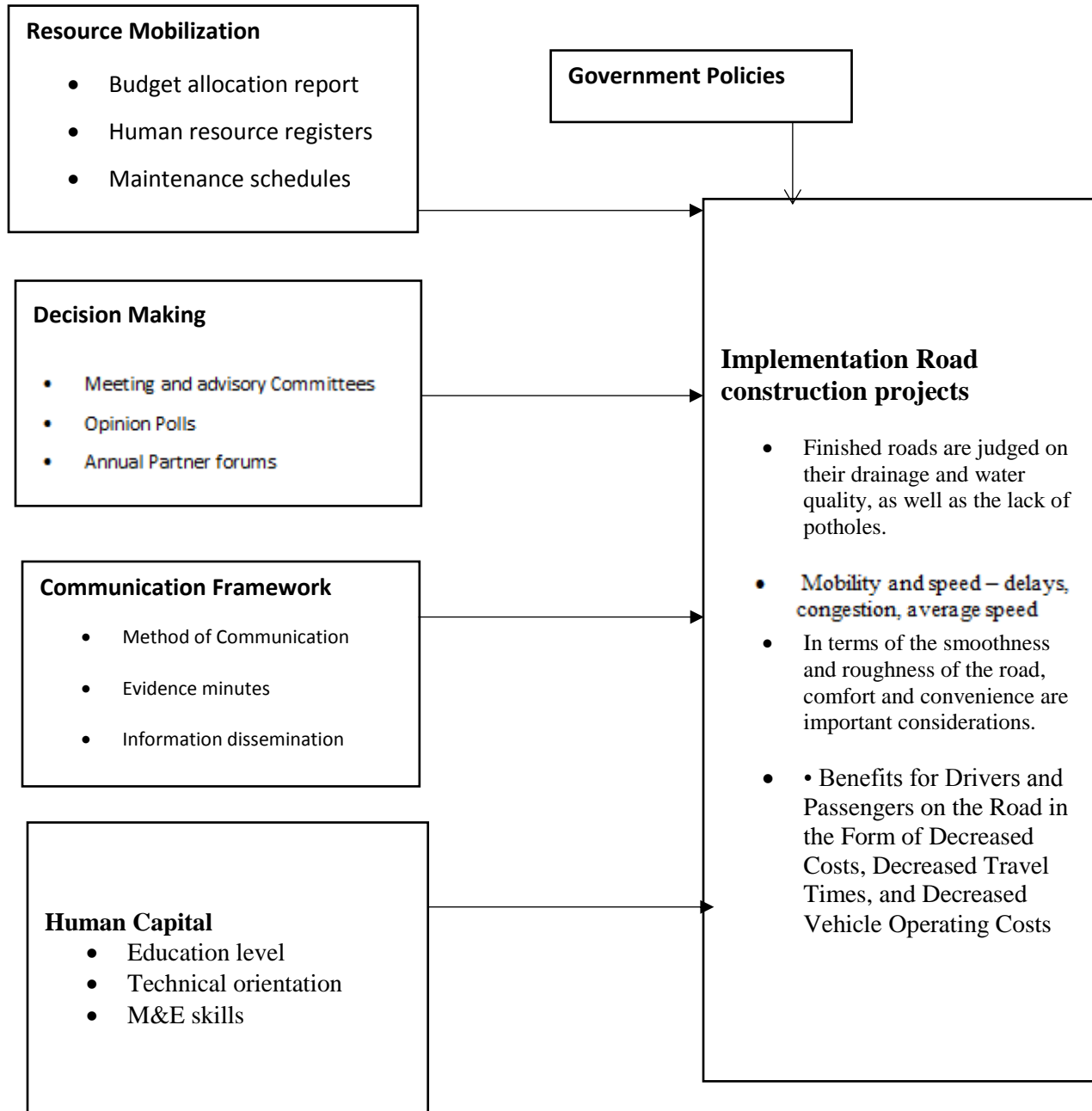


Figure 2.1 is a graphical illustration of a conceptual framework pertaining to the participation of stakeholders and the execution of a road building project.

2.8 Knowledge Gap

Stakeholder Participation Assessment on Kiambu County Road Construction Projects Implementation, according to the studied literature, is deficient. This study attempts to bridge knowledge gaps that have been left as a result of the dearth of previously published research on the impact of aspects related to road construction project such as resource mobilization, decision making, communication frameworks, and human capital on Implementation.

Table 2.1: Knowledge gaps

Variable	Author & Year	Title of the Study	Research Methodology	Tools of data Analysis	Findings	Knowledge gaps
Resource Mobilization	Bal, et al (2013).	Project resource mobilization	Descriptive survey design	Pearson's correlation examination and multiple regression analysis.	A review of the research shows there are six essential stages for effective stakeholder engagement. These include stakeholder identification, relation to multiple objectives, prioritizing and management as well as assessing the outcomes.	The gap will be investigated using, resource mobilization, regression analysis research design,
	Okeyo et al., (2013)	The implications of delayed resource mobilization on the successful conclusion of projects	Used only historical secondary data	Pearson's correlation examination and multiple regression analysis.	As a result of the findings, stakeholders should develop and discuss resource mobilization strategies to guarantee timely access to resources.	The gap will be investigated using, resource mobilization process, mixed method research design

	Musundi (2015)	Mobilization of Resources on the Completion of road Projects	Descriptive survey design	Frequencies, percentages, Average and Standard deviation.	strategies for the mobilization of resources, which should make sure that resources are available when needed.	The current study will entail the success factors that include resource mobilization
Decision making	Akali and Sakaja, (2018)	The impact that the various phases of project decision-making will have on the final results of the many projects that are being carried out in Kenya.	Descriptive survey design	Multiple regression analysis.	The findings showed that the project's implementation is affected by the decisions made.	. The gap will be investigated using, resource mobilization, regression analysis research design,
	Walubengo (2019)	Bungoma County, Kenya's road projects,	Descriptive survey design	Frequencies, percentages, Average and	Established that the correlation amongst project decision making	The study focused on project decision making for road projects but failed to

		and the managerial qualities that went into their implementation.		Standard deviation. Multiple regression analysis.	and the road projects implementation depended on management skills	address implementation of road projects avoid that is aimed to be filled in this study.
	Muchunu (2015)	The impact that include key players in the decision-making process has on the implementation of publicly funded initiatives. A study of the county of Isiolo	cross-sectional survey research	Frequencies, percentages, Average and Standard deviation. Pearson's correlation examination and multiple regression analysis.	There was a lack of stakeholder input since most residents were unaware of how the county budgeted their money.	The study focused on project decision making for road projects but failed to address implementation of road projects avoid that is aimed to be filled in this study.

Communication Framework	Mugo, (2018)	The impact of organizational communication on building project implementation in Nairobi City County, Kenya		Pearson's correlation examination and multiple regression analysis.	Findings of this study are that an appropriate communication channel enabled information to be relayed to the right audience and thus increases trust and team synergy. Communication roles within the project lifecycle should be assigned from the work breakdown structure to avoid overlapping roles.	The gap will be investigated using, resource communication, regression analysis research design,
	Shakeri and Khalizadeh, (2020)	An integrated DEMATEL-ISM strategy was used, and a case study of Iran was utilized, in order to investigate the	Descriptive survey design	Frequencies, percentages, Average and Standard deviation.	Findings of this study are that an appropriate communication channel enabled information to be relayed to the right audience and thus increases trust and team	Application of this in Kenyan context.

		elements that influence project communications.		Pearson's correlation examination and multiple regression analysis.	synergy.	
	Dziekonski, (2017)	Factors influencing project team communication quality,	Descriptive survey design	Pearson's correlation examination and multiple regression analysis.	Results indicate that project managers' most essential responsibilities are communication planning and communication process assessment. However, few research have been done on measuring the communication process and its components.	The gap will be investigated using, resource communication, regression analysis research design,
Human Capital	Boersma (2017)	In transnational supply networks, there are new ways to child labor,	Used only historical secondary data	Pearson's correlation examination and multiple regression	Stakeholders are essential in reducing child exploitation in industries	It only highlights the role of the United Nations (UN) in helping stop child labor. It does not fully explain the role of other stakeholders

				analysis.		in stopping child labor.
	Adigüzel et al. (2017)	An inquiry into the ways in which the management of a company's relationships with its many stakeholders affects that company's overall Implementation	Descriptive survey design	Frequencies, percentages, Average and Standard deviation. Pearson's correlation examination and multiple regression analysis.	The survival of any business or project is dependent on the relationship between employers and employees	It only highlights the relationship between employers and employees and no other stakeholders.
	Madlala (2018)	Industrial relations in South Africa are now characterized by collaborative engaging stakeholder	Used only historical secondary data	Pearson's correlation examination and multiple regression analysis.	There is a need for improved stakeholder engagement in labor issues to improve project success.	The study mainly depended on secondary sources. Most of the sources were outdated.

		methods				
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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents an overview of the methodology that was applied for the investigation that was carried out, and it explains how this approach was executed. It encompasses a wide range of components, including the research design, the population that is the focus of the investigation, the sample size, and the appropriate sampling method. An instrument's validity and reliability must first be tested in a pilot study before it is subjected to a more thorough evaluation of its validity and reliability. In conclusion, the chapter examined the method of data analysis that should be used, the ethical issues that should be taken into account, and the numerous operationalizations of variables that should be considered.

3.2 Research Design

According to Kothari's description of the descriptive survey approach, researchers in this study were able to reach valid findings about the phenomena they were studying since they used this method (2004). Comparatively, this study did not benefit from a longitudinal research design since it calls for observing the same participants over an extended period of time, often spanning many years.

3.3 Target Population

There was a total of one hundred people that participated in this research, and the population that was being studied consisted of four different groups. These categories were the employees working for KURA, the Githurai-Kimbo road contractor and consultants, and other stakeholders. respondents in this study were persons who were participating in a meaningful way in the development of the Githurai-Kimbo road project in either the planning or construction aspects of the endeavor. Because of their extensive understanding and knowledge on the subject matter of the research, they were selected as the target population. The respondents had prior knowledge or expertise that was pertinent to the investigation.

Table 3.2: Distribution of the Target Population

Categories	Target Population (N)
Staff working for KURA	14
Staff working for Githurai-Kimbo Road Contractor	30
Staff working for Githurai-Kimbo Road Consultant	31
Other Stakeholders	25
Total	100

Source: Githurai-Kimbo Road Contractor's Report (2021)

3.4 Sample Size and Sampling Procedures

The samples size and the sampling method was adopted is described in this section. This is explained in subsequent themes:

3.4.1 Sample Size

The researchers opted to conduct a census survey since the study only included a limited number of people from the target group. As a result, all 100 participants in the research were counted.

Table 3.2 Sample Size

Categories	Sample Size (n)	percentage (N /n) * 100
Project Engineers	16	16
Land Surveyor	14	14
Machine Operators	16	16
Design Managers	11	11
Road Inspectors	11	11
Civil Engineers	16	16
Community Leaders	9	9
Project Developers	7	7
Total	100	100

Source: As derived using census survey

3.4.2 Sampling Procedure

A sampling approach known as stratified random sampling was utilized since our target group has a wide range of characteristics. The participants in each stratum were selected for the research based on how well they fit the criteria for participation in the study. It was ensured that every responder from the population had an equal chance to be picked by ensuring that samples were drawn at random from each sampling unit (Creswell, 2009). There will be a variation in the number of components chosen from each sample depending on the percentage that is being studied (Faridullah,2010). A technique known as purposive sampling will be used to gather qualitative information from the KURA project manager, the contractor's team leader, and the consultant's deputy project manager. The researcher uses his or her professional judgment to choose interview participants (Taiwo, 2013).

3.5 Research Instruments

The questionnaire collected quantitative data from Githurai-Kimbo road project implementers who were engineers, design managers, civil engineers, risk managers, financial advisors and

project developers. Opened with a description of the study project's purpose, the questionnaire contained an opening note. In addition, the questionnaire was written in English, and instructions that were direct, succinct, and short were supplied for completing the surveys. Qualitative information was gathered with the use of an interview guide including questions pertinent to the research aims. Respondents who were interviewed were KURA's project manager, Contractor's Team Leader and Consultant's Deputy Project Manager.

3.5.1 Pilot Testing of Instruments

Pilot testing of the questionnaire was achieved by choosing five persons at random from a group that would not participate in the main research. For the pilot project, Mugenda and Mugenda (2003)'s hypotheses were utilized as a guide to choose the participants who would participate. The Gacharage road project in Murang'a County was used for the pilot testing since the populations along the Githurai-Kimbo Road and the Gacharage road project were similar. The pilot testing questionnaire, according to McDaniel and Gates (1996), includes open-ended questions that suggest potential new study subjects for inclusion in the questionnaire. These questions were developed by the pilot testing questionnaire. The researcher was the one who distributed the questionnaires, and he or she checked to see whether the respondents had an adequate understanding of the study questions and provided an opportunity for explanation of any questions that were unclear. The questions were designed to integrate the comments from the pilot respondents in order to remove any ambiguity, inconsistency, or redundancy that may have been present. The researcher involved three experts who were the researcher's supervisor, lead project engineer and lead contract manager, to check the piloted instruments until such a time that they approve the questionnaires were capable of soliciting the required data.

3.5.2 Validity of Research Instruments

The instrument's dependability is directly proportional to its capacity for making precise measurements of the designs. In this research, questionnaires will be defined using linked earlier studies as a starting point, with revisions made to suit the study goals. The research supervisor was required to do a second round of checks on the paper to guarantee that the theoretical

considerations were addressed appropriately. For the research instrument to be correct, input from the supervisor, academic staff, and pilot test participants have to be taken into account. KMO and Bartlett tests were also carried out on variables established as a consequence of responses from pilot test participants to make sure the criteria were valid.

Respondents were advised not to provide their identities in the survey to avoid any impression of bias. It's possible that the researcher gave the questionnaire to participants in person, opting out of using research assistants to avoid bias introduced by differences in voice or gesture. In addition to this, the wordings of the questionnaire will be chosen after proper consideration. The questionnaire questions weren't crafted in a way that was meant to guarantee a certain response from respondents or make them think about things in a particular way.

3.5.3 Reliability of Research Instruments

The findings are error-free or the research instrument generates consistent outcomes hence reliability (Cooper & Schindler, 2014). Cronbach's alpha was useful in establishing the validity of research instruments since it showed there was internal consistency in the tools used to gather the data. The Cronbach Alpha shows reliability by providing a real threshold. Cronbach's Alpha is vital for a scholar to ensure consistency and dependability, even if questions are interchanged with similar questions (Valencia-GO, 2015). Alpha Cronbach is based on the following formula. Table 3.2 provides a thumb rule for most circumstances. Reliabilities in 0.7 range are often regarded satisfactory and above 0.8 are excellent.

Table 3.2: Cronbach's Rule on Internal Consistency

Chronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: (Sekaran, 2003)

3.6 Data Collection Procedure

The process of gathering data involves the use of various methods to elicit appropriate answers from research participants. After acceptance of the University of Nairobi study proposal, data gathering may be carried out. The researcher pursued a NACOSTI license. The University of Nairobi gave an authorization document to the researchers, who began the data collection process with it. This improved the researcher's data collection since his assistants were well-versed in the study techniques and aims, along with the ethical problems that accompany them. The questionnaires were administered individually by the investigator and the four research assistants so that they would have enough time to explain why the information was being sought and what would be considered crucial information. The respondents had entrusted with the questionnaires for a fortnight in order to read, comprehend and fill in the necessary data at their own convenience. After then, the completed surveys were gathered in preparation for data analysis.

3.7 Data Analysis Techniques

Each questionnaire was verified by the researcher to make sure it was accurate, thorough, and conformed to the requirements after the data was gathered. Coding and categorization of the replies were required in order to identify a fundamental pattern from this data set. A combination of descriptives and inferentials statistical approaches was used in order to examine the data. Most of the information was derived from statistics like frequencies and standard deviations rather

than tables or age percentages. As a consequence of the inquiry, graphs, charts, and tables were used to portray the findings.

The variables in the research will be analyzed using linear regression to see whether there is any existing correlation. Coopers and Schindler (2008) describe regression analysis as an approach to determining the type and degree of a connection between variables and evaluating hypotheses. In this study, regression analysis was applicable since it was necessary to quantify the quantitative relationships among project Implementation and participation of stakeholder. In this study, the model examined was described using a linear equation. The linearity of the linkages between the different predictor components and the dependent variable will be examined using a number of models:

$$Y = \beta_0 + \beta_1 X_1 + \mu \dots \dots \dots \text{Equation 1}$$

$$Y = \beta_0 + \beta_2 X_2 + \mu \dots \dots \dots \text{Equation 2}$$

$$Y = \beta_0 + \beta_3 X_3 + \mu \dots \dots \dots \text{Equation 3}$$

$$Y = \beta_0 + \beta_4 X_4 + \mu \dots \dots \dots \text{Equation 4}$$

The researchers employed a mixed multiple linear regression model to see whether the dependent variable was significantly impacted by all of the study's independent elements. The acquired data might be used to determine the constant, coefficient (β_0), and slope of the coefficients (β) by the use of linear regression analysis. Graphs, charts, and tables were used in the process of presenting the findings of the analysis.

3.8 Ethical Considerations

All information collected will be held in the highest confidence and used only for research. This is done so that participants may feel safe and protected in their own homes while taking part. The participants were assured that their responses would be kept confidential and used exclusively for academic reasons. During the process of data collection, the research avoided doing any of the following: posing perplexing questions, expressing shock or hate, using threats or compelling replies in particular aspects, as well as inducing fear or anxiety in participants.

The objectives of the study were made clear on the basis of real facts. The desires of the respondents to remain anonymous were honoured. Because respondents' first and last names are not included anywhere in the surveys, their identities were shielded from public view and protected from disclosure. The participants were requested to freely take part in the study by means of an introduction letter to the research project, and their informed permission was gained by means of the submission of an information consent form. The results were communicated in a manner that was based on the real findings and was devoid of any prejudice. Clearance on an ethical level will be acquired from the University.

3.9 Operationalization of Variables

Table 3.3: Operationalization of Variables

Research Objectives	Source	Indicators	Research Approaches	Measuring Scale	Data Analysis Techniques	Tools of Analysis
To find out whether resource mobilization affects Kiambu road construction project implementation	Resource mobilization	Budget allocation report Human resource registers Maintenance schedules	Quantitative Data Qualitative Data	Nominal Ordinal Interval Ratio	Descriptive statistics Inferential Statistics Thematic analysis	Frequencies, Percentages, Average and Standard deviation. Pearson's correlation examination and multiple regression analysis.

To find out whether decision making has an impact on Kiambu road construction project implementation	Decision making	<u>Meeting and advisory Committees Opinion Polls</u> <u>Annual Partner forums</u>	Quantitative Data Qualitative Data	Nominal Ordinal Interval Ratio	Descriptive statistics Inferential Statistics Thematic analysis	Standard deviation. Pearson's correlation examination and multiple regression analysis.
To determine the impact of the communication framework on Kiambu road construction project implementation.	Communication framework	Method of Communication Evidence minutes Information dissemination	Quantitative Data Qualitative Data	Nominal Ordinal Interval Ratio	Descriptive statistics Inferential Statistics Thematic analysis	Frequencies, Percentages, Average and Standard deviation. Pearson's correlation examination and multiple regression analysis.

To find out whether human capital affects Kiambu road construction project implementation.

Human capital

Education level
 Technical orientation
 M&E skills

Quantitative Data
 Qualitative Data

Nominal
 Ordinal
 Interval
 Ratio

Descriptive statistics
 Inferential Statistics
 Thematic analysis

Frequencies, Percentages, Average and Standard deviation.
 Pearson's correlation examination and multiple regression analysis.

Implementation of road construction projects in Kiambu

Implementation of road construction projects in Kiambu

Completion within schedule
 Completion within budget
 User satisfaction
 Achievement of objectives

Quantitative Data
 Qualitative Data

Nominal
 Ordinal
 Interval
 Ratio

Descriptive statistics
 Inferential Statistics
 Thematic analysis

Frequencies, Percentages, Average and Standard deviation.
 Pearson's correlation examination and multiple

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION, AND DISCUSSION

4.1 Introduction

In this chapter, the outcomes from the field are examined and their relevance to the subject at hand is as shown. The results of the study are summarized in this chapter, along with a review of the background information of the interviewees. The data was analysed using any number of different statistical approaches. The objectives of the research were adhered to throughout the whole process, from the collection and presentation of the study's data through its interpretation and subsequent debate. The study's purpose was to investigate and analyse how participation from various stakeholder groups affects implementation of construction projects related to roads in Kenya. The investigation particularly focused on how mobilization of resources, decision-making, communication framework and human capital affected construction project implementation related to roads in Kiambu County

4.2 Questionnaire Return Rate

The response rates and percentages for each of the items that were asked in this investigation are shown in Table 4.1.

Table 4.1: Distribution of Questionnaire

Response Rate	Frequency	Percentage
Returned	53	53
Not Returned	47	47
Total	100	100

A response rate of 53 % was based on data collected from 53 of the 100 questionnaires that were received and returned, according to the findings. A response percentage of at least 52.7% is deemed excellent by Baruch and Holtom (2008), while a response rate of at least 70% is

regarded extraordinary. Researchers were able to draw findings from this study based on the 53% response rate.

4.3 Demographic of Respondents by Gender, Age and Education

The participants were requested to identify themselves in accordance with their gender. Table 4.2 illustrates the outcomes of their responses to our questions.

Table 4.2: Gender of the Respondent

Gender	Frequency	percentage
Male	24	45.28
Female	29	54.72
Total	53	100.0

It is evident that 54.72 percent were females, with 45.28 percent of respondents being men as evident in Table 4.2. It was discovered that the proportion of men to women was practically same. This demonstrates that the researcher evaluated all respondents, regardless of their gender, in order to acquire credible information on the issue that was being studied.

It was requested of the responders that they specify their age. Table 4.3 contains their replies as they were given.

Table 4.3: Distribution of the Respondents by Age

Age	Frequency	percentage
Below 30 yrs.	15	28.30
31-40yrs	20	37.74
41yrs and above	18	33.96
Total	53	100.0

Of total respondents, 37.74 percent were between the ages of 31 and 40, with a further 33.96 percent between the ages of 41 and beyond as evident in Table 4.3. This suggests that the study's

main goal of determining the importance of stakeholder engagement in road development projects in Kenya: the aging population.

The respondents were questioned about the greatest level of education they had obtained. Table 4.4 is a presentation of their replies.

Table 4.4: Respondents Academic Qualifications

Academic Qualifications	Frequency	%
Diploma	8	15.09
Degree	25	47.16
Post Graduate Degree	20	37.74
Total	53	100.0

The survey indicated that 47.16 % of the respondents had a degree, and 37.74 % of the respondents held a postgraduate degree. These findings are shown in Table 4.4. Also included among the respondents were those who possessed a diploma, which made up 15.09 % of the total. The vast majority of responders had at least a bachelor's degree, while just a minority had a high school diploma. The findings show that the literacy rate is high in Kiambu's County, hence it was a good idea to give the questionnaire there. Application in the field of road construction. Therefore, as a result of this, it was feasible for the researcher to acquire pertinent replies related to the subject that was being studied.

4.4 Resource Mobilization and Implementation Road Construction of Projects

The primary goal of this study is to examine the effects of resource mobilization on the quality of road building projects in Kiambu. Table 4.4 presents and describes the research's findings, which were gathered using a five-point Likert scale.

Table 4.5: Resource Mobilization and Implementation Road Construction of Projects

Resource Mobilization	5	4	3	2	1	Average	SDV
All Project procedures are captured in every fiscal budget of the group budget depends on available government financial solutions	13 (24.5)	14 (26.4)	16 (30.2)	7 (13.2)	3 (5.7)	3.51	1.17
The project manager's expertise was essential in removing unused resources.	26 (49.1)	9 (17)	14 (26.4)	1 (1.9)	3 (5.7)	4.02	1.17
The project was completed within budget, if not under.	15 (28.3)	14 (26.4)	15 (28.3)	3 (5.7)	6 (11.3)	3.55	1.28
Workers have a robust Knowledge management system for all entries and expenditures	17 (32.1)	22 (41.5)	11 (20.8)	2 (3.8)	1 (1.9)	3.98	0.93
Some activities were made cheaper as part of the initiative, but the quality was unaffected.	17 (32.1)	6 (11.3)	16 (30.2)	11 (20.8)	3 (5.7)	3.43	1.29
In accordance with the company's general requirements, the Project was granted	18 (34)	12 (22.6)	15 (28.3)	5 (9.4)	3 (5.7)	3.70	1.20
Composite Average						3.72	1.07

Table 4.4 displays descriptive results, which show that 26.4 % of respondents agreed with the statement that all Project procedures are captured in every fiscal budget of the group budget, while 24.5 % strongly agreed with the statement. The percentage of respondents who partially agreed with the statement that all Project procedures are captured in every fiscal budget of the group budget depends on available government financial solutions was 30.2 %. This statement's average score was 3.51, and its S.D was 1.17, which was lower than the composite average score of 3.72, which was 1.07. This suggests that the remark made above does, in fact, have a detrimental effect on the mobilization of resources. As a result, this is something that needs to be

either improved or examined. The findings also indicate that the experience of the project manager was necessary in clearing out unneeded resources, with just 1.9 % of respondents disagreeing with this statement, 26.4 % slightly agreeing, 17.0 % agreeing, and 49.1 % strongly agreeing. The average score for this assertion was 4.02, and the S.D was 1.17, which was greater than the composite average score of 3.72, which was 1.07. This suggests that the remark made above does, in fact, have a favorable impact on the mobilization of resources.

There were 11.3 % of respondents who completely disagreed, 5.7 % of respondents who disagreed, 28.3 % who somewhat agreed, 26.4 % who agreed, and 28.3 % who strongly agreed that the project was finished within budget, if not under budget. This statement's average score was 3.55, and its S.D was 1.28, which was lower than the composite average score of 3.72, which was 1.07. This suggests that the remark made above does, in fact, have a detrimental effect on the mobilization of resources. As a result, this is something that has to be worked upon or looked over. The staff members have access to an efficient knowledge management system that records all transactions and expenses. Only 3.8 % of respondents had the opposing view, whereas 41.5 % held the neutral or positive viewpoint, and 32.1 % held the strong neutral or positive viewpoint. The average score for this assertion was 3.98, and the S.D was 0.93; this was higher than the composite average score of 3.72, and the S.D was 1.07. This suggests that the remark made above does, in fact, have a favorable impact on the mobilization of resources. As a result of the effort, some activities were made more affordable, but this did not have an impact on the quality; nonetheless, 20.8 % of respondents had contrary opinion (disagreed), while 30.2 % slightly agreed, 11.3 % agreed, and 32.1 % strongly agreed. This statement's average score was 3.43, and its S.D was 1.29, which was lower than the composite average score of 3.72, which was 1.07. This suggests that the remark made above does, in fact, have a detrimental effect on the mobilization of resources. As a result, this is something that needs to be either improved or examined.

The survey results showed that 9.4 % of respondents were opposed to the project, 28.3 % were somewhat agreeing, 22.6 % were agreeing, and 34.0 % were strongly agreeing. In the end, the project was accepted since it was in accordance with the overall requirements of the business. This specific argument had an average score of 3.70 and a S.D of 1.20, both of which were

below the composite average score of 3.72 and the S.D of 1.07 respectively. This suggests that the remark made above does, in fact, have a detrimental effect on the mobilization of resources. As a result, this is something that has to be worked upon or looked over. According to the findings, the answers were very dispersed in relation to the average and exhibited a significant amount of standard deviation. This suggests that the majority of respondents did not have the same perspective in the majority of instances. Resource mobilization determines project's nature and its extent. Officers interviewed indicated the through proper accountability and transparency in resource mobilization development projects will meet its intended objectives and that stakeholder engagement in projects leads to projects that are demand driven and thus meeting the intended outcomes.

4.7.1 Correlation Analysis

To determine the nature of the connection that exists among mobilization of resources and implementation of Kiambu County's road construction project, correlation analyses was carried out. The correlation is seen in Table 4.6.

Table 4.6: Correlation Between Resource Mobilization and Implementation of Road Construction Projects in Kiambu.

		Resource Mobilization	Implementation of Road Construction Projects in Kiambu
Resource Mobilization	Pearson Correlation	1	.711**
	Sig. (2-tailed)		0.000
	N	53	53
Implementation of road construction projects in Kiambu.	Pearson Correlation	0.711**	1
	Sig. (2-tailed)	0.000	
	N	53	53

** . Correlation is significant at the 0.01 level (2-tailed).

According to the findings of the research, successful mobilization of resources is linked significantly ($P=0.00<0.05$) to the completion of road construction project in Kiambu ($r=0.756$). As a result, successful mobilization of resources is required for significant completion of road construction project. Therefore, implementation of road construction projects may be predicted based on the mobilization of resources.

4.7.2. Simple Linear Regression Analysis

In order to ascertain the nature of connection between successful mobilization of resources and the outcomes of road construction project, a straightforward linear regression analyses were carried out. Model findings are shown in Tables 4.7.

Table 4.6: Model Summary for Resource Mobilization and Implementation of Road Construction Projects in Kiambu

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	0.711 ^a	0.506	0.505		5.178

According to outcomes in Table 4.7 of the model summary, the R square was 0.506, which suggests that resource mobilization may explain 50.6% of the success of road construction project. This demonstrates that road construction project implementation may be because of other variables outside the mobilization of resources for 49.4 % of the total variance. The fundamental objective that this study sought to analyze and assess was whether or not there is any significant link mobilization of resources and the projects implementation of road construction. Table 4.10 summarizes the results.

Table 4. 7: ANOVA for Resource Mobilization and Implementation of Road Construction Projects in Kiambu

Model		Sum of Squares	Df	Average Square	F	Sig.
1	Regression	10927.117	1	10927.117	407.555	.000 ^b
	Residual	10670.923	51	26.811		
	Total	21598.040	52			

a. Dependent Variable: Resource Mobilization

b. predictors: (Constant), Implementation of Road Construction Projects

The computation yielded the following findings: the F value (407.555) is more than the F-critical value (3.9103), and the p value (0.000) is much less than the significance threshold. These findings are shown in Table 4.8. (0.005). This proves the model's usefulness for estimating how resource mobilization will affect the timeliness of road building projects.

The purpose of this research was to establish the degree to which efficient resource accumulation and timely project completion are intertwined throughout the road building process. The findings of the study are detailed in Table 4.9.

Table 4.8: Regression Coefficients for Resource Mobilization and Implementation of Road Construction Projects in Kiambu

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.037	0.852		23.511	0.000
	Resource Mobilization	0.538	0.027	0.711	20.188	0.000

a. Dependent Variable: Implementation of Road Construction Projects

b.

The value of p was determined to be $0.00 < 0.05$ in accordance with the results. Given that the calculated value of P is $0.00 < 0.05$, this suggests that the mobilization of resource has a significant influences on the success of road construction projects. It has been determined that the alternative hypothesis may be trusted, which asserts that the project implementation , specifically, road construction is not significantly impacted by the process of resource mobilization.

This leads to the development of the following model;

$$Y = 20.037 + 0.538X$$

This shows that an increase in resource mobilization by one unit will result in a implementation boost of 0.538 units for road construction projects.

4.5 Decision Making and Implemenation Road Construction of Projects

The second objective is to conduct research on the degree to which decision-making affects the level of achievement that road construction projects in Kiambu achieve. The information was gathered with the use of a Likert scale that has five levels, and the outcomes of the investigation are shown in table 4.10 along with a summary of their significance.

Table 4.9: Decision Making and Implementation Road Construction of Projects

Decision Making	5	4	3	2	1	Average	SDV
M&E ensures that products are of high quality and projects are delivered on time.	18 (34)	12 (22.6)	17 (32.1)	6 (11.3)	(0)	3.79	1.04
M&E is an essential component in the successful completion of projects.	26 (49.1)	8 (15.1)	8 (15.1)	3 (5.7)	8 (15.1)	3.77	1.49
Monitoring enable staffs and managers to ensure that projects run as anticipated right from start	17 (32.1)	16 (30.2)	12 (22.6)	4 (7.5)	4 (7.5)	3.72	1.21
There is notable link between M&E practices and completion of Kenya pipeline company projects	16 (30.2)	13 (24.5)	14 (26.4)	5 (9.4)	5 (9.4)	3.57	1.28
The majority of members of the	15 (28.3)	20 (37.7)	8 (15.1)	4 (7.5)	6 (11.3)	3.64	1.29

management team have extensive experience in the monitoring and evaluation of projects.

M&E guarantees that the final products are of superior quality and that all projects are completed on schedule.

	12	24	8	7	2		
	(22.6)	(45.3)	(15.1)	(13.2)	(3.8)	3.70	1.08
Composite Average						3.70	1.23

Table 4.10's descriptive data show that of the total respondents, 32.1% were in agreement that M&E guarantees that items are of excellent quality and projects are completed on time, whereas 22.6% agreed and 34.0% strongly agreed with the statement. The average score for this assertion was 3.79, and the S.D was 1.09; this was higher than the composite average score of 3.70, and the S.D was 1.23. This suggests that the remark made above does have a favorable impact on the process of decision making. M&E is an essential component in the process of bringing Kenya electricity Transmission Company limited projects to a successful conclusion. 5.7% of those polled expressed their disagreement with the statement, 15.1% offered a partial agreement, 15.1% offered their agreement, and 49.1% offered their strong agreement. When compared to the overall average of 3.70 and the S.D of 1.23, this particular statement's average score of 3.77 and S.D of 1.49 was significantly higher. This suggests that the aforementioned assertion does, in fact, impact decision making in a good way.

As per the outcome, 32.1 % strongly agreed, 22.6 % agreed, and 22.6 % of respondents somewhat agreed that monitoring assists workers and management to guarantee that projects operate as intended right from the outset. This statement received an average score of 3.72 and a S.D of 1.21, which was above of 3.70 as composite average and the S.D of 1.23. This suggests that the remark made above does have a favorable impact on the process of decision making. It has been shown that M&E procedures are significantly related to the successful conclusion of pipeline firm projects in Kenya. 9.4 % of those polled did not agree with the statement, 26.4 % agreed somewhat, 24.5 % agreed, and 30.2 % agreed to a greater or lesser extent. This particular assertion had a average score of 3.57 and a S.D of 1.28, both of which were lower than the composite average score of 3.70 and S.D of 1.23. This suggests that the remark made above does

have a detrimental effect on the process of decision making. As a result, this is something that needs to be either improved or examined.

In response to the statement that the majority of individuals that make up the management group are familiar with the monitoring and evaluation of the project, 7.5 % of respondents disagreed with the statement, 15.1 % somewhat agreed, 37.7 % agreed, and 28.3 % strongly agreed. When compared to the overall average of 3.70 and the S.D of 1.23, this particular statement's average score of 3.64 and S.D of 1.29 were both lower. This suggests that the remark made above does have a detrimental impact on the process of decision making. Therefore, there is need for this to be improved or reviewed.

The majority of respondents (45.3%) think that M&E helps to guarantee that goods have a high quality and that projects are completed on time, and 22.6% of them strongly agree with this statement. The average score for this assertion was 3.70, and the S.D was 1.08, which was a higher value than the composite average score of 3.70 and the S.D of 1.23. This lends credence to the notion that the observation stated before does, in fact, have a positive influence on the method by which decisions are made. According to the data, the responses had a large level of standard deviation and were significantly spread out in comparison to the mean. This suggests that the majority of respondents did not share the same viewpoint in the vast majority of situations, as shown by the fact that.

When it comes to making decisions formally, a bureaucratic method is only relevant when it plays a part in the process, which carries with it a number of drawbacks. One of those who was interviewed stated that the failure of the majority of projects can be traced back to the implementation strategy that was used. According to this interviewee, this is because an implementation strategy in project management makes it possible to set up a framework that can be changed to help project managers set up and manage stages of project implementation, meet project goals on time, and meet stakeholders' expectations.

4.5.1 Correlation Analysis

The goal of the correlational analysis that was carried out was to conduct an examination into the nature of the relationship that exists between the process of making choices and the implementation of the road construction project in Kiambu. Table 4.11 illustrates that there is a

Table 4.10: Correlation Between Decision Making and Implementation Road Construction

		Decision Making	Implementation Road Construction
Decision Making	Pearson Correlation	1	0.699**
	Sig. (2-tailed)		.000
	N	53	53
Implementation Road Construction	Pearson Correlation	0.699**	1
	Sig. (2-tailed)	0.000	
	N	53	53

******. Correlation is significant at the 0.01 level (2-tailed).

link between the variables

There is a considerable link between good decision making and the successful implementation of road construction projects, as shown by the results of the study ($r=0.699$, $P=0.00<0.05$). As a consequence of this, there is an important connection that exists between the procedure of making decisions and the carrying out of projects involving the construction of roads. This suggests that the ability to make decisions accurately predicts the outcome of road construction project.

4.7.2. Simple Linear Regression Analysis

In order to determine the nature of the connection that exists between the process of making decisions and the level of success achieved by road construction projects in Kiambu, a straightforward linear regression analysis was carried out. This was done in order to identify the nature of the link that exists between the two factors. The findings that were obtained by running the model are shown in Tables 4.12.

Table 4.11: Model Summary for Decision Making and Implementation Road Construction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599 ^a	.358	.357	5.901

a. Predictors: (Constant), Decision making

Table 4.12 of the model summary shows that the R square was 0.358, which indicates that decision making may account for 35.8% of the implementation of road construction projects. As can be shown, 64.2 % of a project's success may be due to factors other than how well the road construction project performs.

The purpose of the research was to investigate the premise that there is no substantial connection between the decision-making process and the success of road construction project in Kiambu. Table 4.13 shows the results.

Table 4.13: ANOVA for Decision Making and Implementation Road Construction

Model		Sum Squares	of df	Average Square	F	Sig.
1	Regression	7737.883	1	7737.883	222.196	.000 ^b
	Residual	13860.157	51	34.825		
	Total	21598.040	52			

a. Dependent Variable: Implementation of Road Construction Projects

b. Predictors: (Constant), Decision making

As can be seen in Table 4.13, the F-calculated value (222.196) is higher than the F-critical value (3.9103), and the p-value (0.000) is lower than the significance level (0.005). This indicates that the model is able to be utilized in the prediction of the influence of decision making ON the Implementation of road construction projects in Kiambu.

The purpose of this research was to determine how closely decision-making and the success of road construction project in Kiambu are related to one another. Table 4.14 shows the results

Table4.14: Regression Coefficients for Decision Making and The Implementation of Road Construction Projects

Model		Unstandardized		Standardized	T	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	15.685	1.423		11.025	.000
	Decision making	.614	.041	.599	14.906	.000

a. Dependent Variable: Implementation of road construction projects

The conclusion reached by analyzing the data was that $p = 0.00 < 0.05$. As a result, the implementation of road construction project is greatly impacted by decision making since the computed P value is $p=0.00 < 0.05$. It can no longer be maintained as a null hypothesis that implementation of road construction project is not greatly impacted by decision making.

This leads to the development of the following model;

$$Y=15.685 + 0.614X$$

This indicates that there is a boost of 0.614 units in the implementation of road construction projects if there is an improvement of one unit in the decision making process.

4.6 Communication Framework and Implementation Road Construction of Projects

As for the third objective, it is to examine how the communication framework affects the final outcome of the road building project in Kiambu. Information was collected using a 5-point Likert scale, and the results of the research are described in table 4.15.

Table 4.12: Communication Framework and Implementation Road Construction of Projects

Communication Framework	5	4	3	2	1	Average	SDV
Technical expert is vital in capacity building because it facilitates interaction and project management	30 (56.6)	9 (17)	7 (13.2)	5 (9.4)	2 (3.8)	4.13	1.19
For Kenya road business projects to be completed, highly skilled workers and a sufficient budget are essential.	12 (22.6)	8 (15.1)	14 (26.4)	11 (20.8)	8 (15.1)	3.09	1.38
Project managers need the necessary technical expertise in project management	14 (26.4)	27 (50.9)	5 (9.4)	4 (7.5)	3 (5.7)	3.85	1.08
Most project managers are equipped with the right technical skills linked to project completion	22 (41.5)	4 (7.5)	5 (9.4)	2 (3.8)	20 (37.7)	3.11	1.83
A mind map is used by the project manager to organize goals and deadlines.	18 (34)	14 (26.4)	10 (18.9)	8 (15.1)	3 (5.7)	3.68	1.25
The project managers are trained on the technical skills required for the job.	11 (20.8)	5 (9.4)	13 (24.5)	14 (26.4)	10 (18.9)	2.87	1.40
Composite Average						3.46	1.36

According to the descriptive findings in Table 4.15, 13.2 % of respondents somewhat agreed, 17.0 % agreed, and 56.6 % strongly agreed that having a technical expert on hand during

capacity development is essential because it makes interaction and project management easier. The average score for this statement was 4.13, and the S.D was 1.19, which was higher than the composite average score of 3.46 and the S.D of 1.36. This suggests that the remark made above does indeed have a favorable effect on the communication framework. Twenty-one point eight % of respondents disagreed that highly skilled workers and a sufficient budget are essential for the completion of Kenya road business projects. Twenty-six point four % of respondents partially agreed, while fifteen point one % agreed, and twenty-two point six % strongly agreed. The average score for this assertion was 3.09, and the S.D was 1.38; this was lower than the composite average score of 3.46, and the S.D was 1.36. This suggests that the comment made above does, in fact, have a detrimental effect on the communication framework. As a result, this is something that needs to be either improved or examined.

In order to successfully manage projects, project managers need to have the appropriate level of technical competence. There were 5.7 % of respondents who strongly disagreed with the statement, 7.5 % of respondents who disagreed, 9.4 % of respondents who gave a response of partial agreement, 50.9 % of respondents who agreed, and 26.4 % of respondents who strongly agreed. When compared to the overall average of 3.46 and S.D of 1.36, this particular statement's average score of 3.85 and S.D of 1.08 was significantly higher. This suggests that the remark made above does indeed have a favorable effect on the communication framework. The vast majority of project managers possess the appropriate technical abilities associated to the successful completion of their projects. 41.5 % of respondents strongly agreed with the statement, whereas 37.7 % strongly opposed, 9.4 % slightly agreed, and 7.5 % agreed. The average score for this assertion was 3.11, and the S.D was 1.83; this was lower than the composite average score of 3.46, and the S.D was 1.36. This suggests that the remark made above does, in fact, have a detrimental effect on the communication framework. Therefore, there is need for this to be improved or reviewed.

The project manager will use a mind map to organize the goals and deadlines for the project. 15.1 % of respondents did not agree with the statement, 18.9 % only slightly agreed, 26.4 % agreed, and 34.0 % strongly agreed. The average score for this assertion was 3.68, and the S.D was 1.25; this was a higher score than the composite average, which was 3.46, and the S.D was 1.36. This suggests that the remark made above does indeed have a favorable effect on the

communication framework. Training is provided to project managers on the many technical skills necessary for the position. There were 26.4 % of respondents who didn't agree with the statement, 24.5 % who just partly agreed, 9.4 % who agreed, and 20.8 % who agreed strongly. The average score for this assertion was 2.87, and the S.D was 1.40; this was lower than the composite average score of 3.46, and the S.D was 1.36. This suggests that the comment made above does, in fact, have a detrimental effect on the communication framework. As a result, this is something that has to be worked upon or looked over. According to the findings, the replies were very dispersed in relation to the average, despite the fact that the S.D was quite low. In most cases, this indicates that the majority of respondents did not share the same viewpoint.

From the respondents interviewed it was indicated that communication planning is the most important task of project managers he established that although communication planning is a key activity of project managers, there are a few lessons in the evaluation of the communication process and its components. One of interviewees said that “there is a connection between communication and project execution, and it is essential to ensure the implementation of capital expenditure projects to maintain communication lines open and accurate with all stakeholders”.

4.5.1 Correlation Analysis

A correlation study was performed to explore the link between the communication plan and the actualization of the road building project. Statistical evidence of this association is shown in Table 4.16.

**Table4.13: Correlation Between Communication Framework and Implementation P
Road Construction of Projects**

		Communication Framework	Implementation Road Construction of Projects
Communication Framework	Pearson Correlation	1	.646**
	Sig. (2-tailed)		.000
	N	53	53
Implementation Road Construction of Projects	Pearson Correlation	.646**	1
	Sig. (2-tailed)	.000	
	N	53	53

** . Correlation is significant at the 0.01 level (2-tailed).

According to the findings of the research, there is a significant link between the communication framework and the implementation of road construction project ($r = 0.646$, $P = 0.00 < 0.05$). As a result, there is a significant connection between the communication structure and the successful completion of road construction projects. This indicates that communication framework predicts implementation road construction of projects.

4.7.2. Simple Linear Regression Analysis

Simple linear regression analysis was conducted to establish the relationship between communication framework and Implementation road construction of projects. Tables 4.17 show the results of the model.

Table 4.17: Model Summary for Communication Framework and Implementation Road Construction of Projects

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599 ^a	.572	.570	4.822

a. Predictors: (Constant), Communication framework

b. Implementation Road Construction of Projects

Based on the data shown in Table 4.17 of the model summary, the R square was 0.572, which indicates that communication framework could explain 57.2 % of the Implementation of road construction project. This demonstrates that other elements outside the communication framework might account for 42.8 % of the implementation of road construction project.

This study was conducted with the intention of testing the premise that there is not a significant connection between the communication framework and the success of road construction projects. Table 4.18 presents the results of the investigation.

^{xi} **Table 4.18: ANOVA for Communication Framework and Implementation Road Construction of Projects**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12343.820	1	12343.820	530.876	.000 ^b
	Residual	9254.220	51	23.252		
	Total	21598.040	51			

a. Dependent Variable: Implementation Road Construction of Projects

□

The fact that the F-calculated value (530.876) is higher than the F-critical value (3.9103) and the p-value (0.000) is lower than the significance level (0.005) demonstrates that the model is suitable for use in predicting the influence of communication framework on the implementation of road construction projects. These findings are presented in Table 4.18.

The purpose of this research was to determine how strong of a connection there is between the communication framework and the implementation of road construction project. The findings are summarized in Table 4.19.

Table 4.19:Regression For Communication Framework and Implementation Road Construction of Projects

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1 Implementation (Constant)	10.564	1.148		9.201	.000
Road Construction of Projects	0.709	.031	.756	23.041	.000

a. Dependent Variable: Communication Framework

According to the findings, the value of p was $0.00 < 0.05$. Given that the determined P value is $p = 0.00 < 0.05$, it can be concluded that the communication framework has a considerable impact on the implementation of road construction project. The alternative hypothesis, which asserts that communication framework do not significantly affect the implementation of road construction projects, is seen to be inconsistent with the null hypothesis' findings.

This leads to the development of the following model;

$$Y = 10.564 + 0.709X.$$

4.7 Human Capital and Implementation Road Construction of Projects

The impact of human capital on the delivery of road building projects in Kiambu is the subject of our fourth line of inquiry. The road-building project's actual execution is the primary focus of this inquiry. Data was collected using a 5-point Likert scale, and a summary of the study's results is shown in table 4.20.

Table 4.14: Human Capital and Implementation Road Construction of Projects

Human Capital	5	4	3	2	1	Aver	SDV
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						age	
Technical skills is externally sourced to support the road project	36 (67.9)	5 (9.4)	8 (15.1)	3 (5.7)	1 (1.9)	4.36	1.06
The staff embrace technical capacity building	18 (34)	17 (32.1)	9 (17)	9 (17)	0 (0)	3.83	1.09
The staff possess the required road construction management skills	32 (60.4)	11 (20.8)	3 (5.7)	5 (9.4)	2 (3.8)	4.25	1.16
Workers have a high degree of training and education.	23 (43.4)	5 (9.4)	13 (24.5)	6 (11.3)	6 (11.3)	3.62	1.43
The staff members have shown a strong desire to advance their educational position.	15 (28.3)	3 (5.7)	12 (22.6)	11 (20.8)	12 (22.6)	2.96	1.53
The staff are trained on M&E practices	17 (32.1)	8 (15.1)	14 (26.4)	9 (17)	5 (9.4)	3.43	1.35
Composite Average						3.74	1.27

Based on the descriptive findings in Table 4.20, 15.1 % of respondents somewhat agreed that externally supplied technical talents are being used to help the road project, 9.4 % agreed, and 67.9 % strongly agreed. This assertion was given an average score of 4.36 and a S.D of 1.06, both of which were higher than the composite average score of 3.74 and the S.D of 1.27, respectively. It seems from this that the claim stated before does, in fact, have a positive impact on human capital. 17.0 % of respondents disagreed with the assertion that the staff welcomes technical capacity development, whereas 17.1 % somewhat agreed, 32.1 % agreed, and 34.0 % strongly agreed with the statement. This particular assertion was given an average score of 3.83

and a S.D of 1.09, both of which were higher than the composite average score of 3.74 and the S.D's 1.27. It would seem from this that the comment in question does, in fact, have a positive impact on human capital.

The personnel has the essential road construction management abilities, with 5.7 % of respondents agreeing that they do, 20.8% agreeing, and 60.4% strongly agreeing that this is the case. The average score for this assertion was 4.25, and the S.D was 1.09, which was greater than the composite average score of 3.74, which was 1.27. This suggests that the preceding statement does, in fact, effect human capital in a good way. In response to the statement that the staff has a decent level of education, 11.3 % of respondents disagreed, 24.5 % slightly agreed, 9.4 % agreed, and 43.4 % strongly agreed. The average score for this assertion was 3.62, and the S.D was 1.43; this was a higher score than the composite average of 3.74, and the S.D was 1.27. This suggests that the assertion made above does, in fact, have a detrimental effect on human capital. Therefor there is need for improvement.

Staff members are committed to getting more education. Twenty-eight % of respondents disagreed, twenty-six % partly agreed, five and a half % agreed, and twenty-eight and a third % strongly agreed. The average score for this statement was 2.96, and the S.D was 1.53, which was higher than the average score for all statements, which was 3.74, and the S.D was 1.27. This averages that the above statement does have a bad effect on human capital. Because of this, there is a need for change. The staff is trained in M&E practice, agreed 15.1% of respondents, and 32.1% strongly agreed. The average score for this statement was 3.43, and the S.D was 1.35, which was higher than the average score for all statements, which was 3.74, and the S.D was 1.27. This averages that the above statement does have a bad effect on human capital. Because of this, there is a need for change. The results show that responses were all over the place and far from the average. This was due to a high standard deviation.

From the respondents interviewed it was indicated that human capital data is important in planning strategically for regional development projects, the human capital be organized through a participatory process at the beginning of the project. One of interviewees said that “human capital influence on project success focus should be laid on factors affecting project success and the project manager’s knowledge should be enhanced on the effect of these factors”.

4.5.1 Correlation Analysis

A correlational study was conducted to learn more about the link between human capital and the implementation of a road building project. Tab. 4.21 shows the correlation.

Table 4.15: Correlation Between Human Capital and Implementation Road Construction of Projects

		Human Capital	
		Implementation Road Construction of Projects	
Human Capital	Pearson Correlation	1	.514**
	Sig.(2-tailed)		0.000
	N	53	53
Implementation Road Construction of Projects	Pearson Correlation	0.514**	1
	Sig. (2-tailed)	0.000	
	N	53	53

** . Correlation is significant at the 0.01 level (2-tailed).

According to the findings of the research, there is a significant connection between human capital and the successful completion of road construction project ($r = 0.514$, $P = 0.00 < 0.05$). As a result, there is an important connection between the availability of human capital and the successful completion of road construction project. This suggests that human capital is a reliable indicator of the success of building projects, particularly those involving roads.

4.7.2. Simple Linear Regression Analysis

In order to investigate the nature of the relationship that exists between human capital and the successful completion of the road building project, a straightforward linear regression analysis was carried out. Tables 4.22 provide the findings obtained from the model.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.626 ^a	.391	.387	.74646

a. Predictors: (Constant) Human capital

Table 4.16: Model Summary for Human Capital and Implementation Road Construction of Projects

R square was 0.391, which indicates that human capital could explain 39.1 % of the implementation of road construction project based on the data presented in Table 4.22, which is a summary of the model. This demonstrates that other variables outside human capital may account for 60.9% of the implementation of road construction project rather than human capital.

The purpose of this research was to investigate the premise that there is no substantial connection between human capital and the implementation of road construction project. Table 4.23 presents the obtained findings.

Table 4. 17ANOVA for Human Capital and Implementation Road Construction of Projects

Model		Sum of Squares	df	Average Square	F	Sig.
	Regression	49.103	1	49.103	88.124	0.000 ^b
1	Residual	76.336	21	0.557		
	Total	125.439	52			

a. Dependent Variable: Human Capital

b. Predictors: (Constant), Implementation Road Construction of Projects

In Table 4.23, we can see that the computed F value (88.124) is larger than the F critical value (3.9103), while the p value (0.000) is less than the significance threshold (0.005). This proves the model's viability for anticipating how human capital will affect the realization of road building projects.

The purpose of this research was to determine how strong a connection there is between human capital and the efficiency with which road construction project are completed. The findings are shown in Table 4.24.

Table 4.18: Regression Human Capital and Implementation Road Construction of Projects

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	22.289	0.934		23.867	0.000
	Human capital	0.561	0.029	0.424	15.917	0.000

a. Dependent Variable: Implementation Road Construction of Projects

The conclusion reached by analyzing the data was that $p = 0.00 < 0.05$. In light of the fact that P was found to be in the range of $0.00 < 0.05$, the conclusion that can be drawn is that the contribution of human capital to the successful completion of road construction projects is substantial. The null hypothesis, which holds that human capital has no bearing on the success of road building projects, may be rejected on the grounds that this assumption is untrue.

The following model is constructed as a result;

$$Y = 22.289 + 0.561X$$

4.8 Implementation Implementation Road Construction of Projects

The extent to which the endeavours concerning road construction were effective served as the dependent variable in this study. As specified in Table 4.23, respondents were to mention, within their replies, the total length of time that they had spent working on the project.

Table 4.19: Implementation Road Construction of Projects

Statement	5	4	3	2	1	Aver age	S.D
The road was constructed using practical drainage systems in order to provide the best possible implementation over the long term.	19 (22.7)	13 (40.9)	10 (15.9)	9 (17)	2 (3.4)	3.63	1.1 2
The expenditures incurred by drivers have decreased dramatically as a direct result of improvements made to the roads.	12 (14.8)	18 (55.7)	9 (11.4)	8 (10.2)	6 (8)	3.59	1.1 1
Congestion has significantly reduced	5 (5.7)	29 (58)	16 (21)	1 (12)	2 (2.3)	3.52	0.8 7
During periods of intense precipitation, the roadway does not get flooded (rainy season)	5 (5.7)	17 (53.4)	17 (20.5)	10 (19.3)	3 (1.1)	3.43	0.9 1
Due to improvements in road construction, there have been fewer instances of vehicles breaking down while driving.	17 (25)	13 (42)	12 (19.3)	7 (8)	4 (5.7)	3.73	1.1 0
Pedestrians' walkways adequately provided	5 (5.7)	29 (58)	16 (21)	1 (12)	2 (2.3)	3.52	0.8 7
Composite Average						3.57	1.0 2

Table 4.25 shows that of the 53 people who took part in the study, 20 (22.7 %) strongly agreed that a proper drainage system was included into the road's design to ensure its longevity, 36 (40.9 %) agreed, 14 (15.9 %) were neutral, 15 (17 %) disagreed, and 3 (3.4 %) strongly disagreed. According to the S.D of 0.94, this statement obtained a higher average score than the composite average of 3.57 and a S.D of 1.12, indicating that it was completed in less than half the time allotted for completion. The expenditures incurred by motorists have significantly decreased as a direct result of improvements made to the highway infrastructure. 13 (14.8 %) of respondents strongly agreed with the statement, 49 (55.7 %) of respondents agreed with the statement, 10 (11.4 %) of respondents were neutral, 9 (10.2 %) of respondents disagreed with the statement, and 7 (8 %) strongly disagreed with the statement. The statement received a average score of 3.59 and a S.D of 1.11, which was higher than the composite average of 3.57 and a S.D of 1.02; this indicates that the statement has an influence. Evaluation of the effectiveness of road development projects.

On the statement that congestion has significantly decreased, 5 (5.7 %) respondents strongly agreed with the statement, 51 (58 %) agreed, 19 (21.6 %) were neutral, 11 (12.5% %) disagreed, and 2 (2.3 %) strongly disagreed with a average score of 3.52 and S.D of 0.87, which was lower than the composite average of 3.57 and S.D of 1.02. This suggests that the statement has a detrimental impact on the Implementation of road construction project, and as a result, the statement requires some type of improvement. On the statement that even during the worst of downpours, there is little risk of the road being flooded, 5 (5.7 %) respondents strongly agreed with the statement, 47 (53.4 %) agreed, 18 (20.5 %) were neutral, 17 (19.3 %) disagreed, and 1 (1.1 %) strongly disagreed with a average score of 3.43 and S.D of 0.91, which was lower than the composite average of 3.57 and S.D of 1.02.

On the statement that the number of vehicle breakdowns on the roads has decreased as a result of good road construction, 22 people (25 %) strongly agreed with the statement, 37 people (42 %) agreed with the statement, 17 people (19.3 %) were neutral, 7 people (8 %) disagreed, and 5 people (5.7 %) strongly disagreed with the statement. This particular assertion had a average score of 3.73 and a S.D of 1.10, both of which were higher than the composite average of the composite average, which was 3.57 and had a S.D of 1.02. It may be deduced from this that the statement has an effect on the way initiatives turn out. On the statement that pedestrians'

walkways were adequately provided, 5 (5.7 %) respondents strongly agreed with the statement, 51 (58 %) agreed, 19 (21.6 %) were neutral, 11 (12.5% %) disagreed, and 2 (2.3 %) strongly disagreed, yielding a average score of 3.52 and a S.D of 0.87, which was lower than the composite average of 3.57 and a S.D of 1.02. This suggests that the statement has a detrimental impact on the implementation of road construction project, and as a result, there is a need for the statement to be improved.

4.9 Multiple Linear Regression Analysis

A research team employed multiple linear regression to examine the data in order to determine whether or not the number of stakeholders engaged in a road building project in Kenya can accurately predict how successful the project would be. The findings of the multiple regression analysis are shown below in table 4.26.

Table 4.20: Model Summary for Combined Determinants of Stakeholder’s Participation and Implementation of Road Construction Projects

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate
1	.856 ^a	.732	.649	.520

Predictors: (Constant), resource mobilization, decision-making, and communication and human capital

Stakeholders' engagement in road construction project accounts for 73.2 % of the project's success, according to data in Table 4.26 of the model summary. This reveals that additional variables other than the combined drivers of stakeholder engagement account for 26.8% of the implementation of road construction project.

According to one of the hypotheses that was put to the test in this study, there is not a significant association between the involvement of stakeholders and the success of a road building project. Table 4.25 presents the findings obtained from the model.

Table 4.21: ANOVA for Combined Determinants of Stakeholder’s Participation and Implementation of Road Construction Projects

Model	Sum of Squares	df	Average Square	F	Sig.	
1	Regression	14879.327	4	4784.807	270.423	.000b
	Residual	6518.813	191	14.325		
	Total	155268.14	195			

Dependent Variable: Implementation of Road Construction Projects

Predictors: (Constant), resource mobilization, decision-making, and communication and human capital

As can be seen in Table 4.27, the calculated F value (270.423) is higher than the F critical value (2.4377), and the p value (0.000) is lower than the significance level (0.005). This indicates that the model can be utilized in the process of predicting the influence of combined determinants of stakeholder's participation. The goal of the study was to ascertain how closely one component is related to the other aspects that go into making up the total. The objective of the study was to ascertain the degree to which each component of the overall drivers of stakeholder involvement is connected to the others. The findings are shown in the table 4.28.

Table 4.22: Model coefficients for Combined Determinants of Stakeholder’s Participation and Implementation of Road Construction Projects

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
1	(Constant)	7.389	1.025	7.208 .000
	Resource mobilization	.069 .035	.201	1.9714 .001
	Decision making	.546 .042	.469	13.000 .000

Communication frame	.075	.044	.072	1.704	.013
Human capital	.187	.036	.479	5.194	.000

a. Dependent Variable: Implementation of Road Construction Projects

The findings showed that ($p = 0.001$, $p = 0.000$, $p = 0.013$, $p = 0.000$) was more than 0.05. It is possible to draw the following conclusion as a result of the fact that P was calculated to be smaller than 0.05: each of the components that make up the combined determinants of stakeholder involvement has a major influence on the execution of the road building project. It is concluded that the null hypothesis stating that the individual factors that make up the combined determinants of stakeholder engagement do not have a substantial impact on the Implementation of road construction project cannot be supported.

The following model is constructed as a result;

$$Y=7.389+ 0.069X_1 + 0.546X_2 + 0.075X_3 + 0.187X_4$$

This suggests that there is an increase in implementation of road construction project by 0.069 units if there is a one-unit improvement in resource mobilization. If one were to enhance decision making by one unit, there would be a 0.546 unit gain in the implementation of road construction project. When the communication framework is improved by one unit, there is a corresponding gain of 0.075 units in the overall implementation of road construction project. Last but not least, research has shown that a one-unit increase in human capital results in a 0.187-unit improvement in the implementation of road construction project.

4.10 Discussion of Findings

This study's objective was to investigate and determine the amount of stakeholder participation that currently exists in road construction projects in Kenya. A comprehensive investigation on the Githurai-Kimbo road building project that is taking place in Kiambu County. The specific objectives of the study were as follows: to determine the influence that resource mobilization has on the implementation of road construction projects in Kiambu; to assess the influence that decision making has on the implementation of road construction projects in Kiambu; to establish the influence that communication framework has on the implementation of road construction

projects in Kiambu; and to establish the influence that human capital has on the implementation of road construction projects in Kiambu. As a direct result of this, the discussion of the results of the study was focussed on the specific goals that were presented earlier in the introduction.

4.10.1 Resource Mobilization and Implementation Road Construction of Projects

It was determined that the overall impact of resource mobilization on the effectiveness of road construction project was a composite average of 3.72. With an average score of 4.02 and 4.24, the study's main assertions said that the project manager's competence was vital in reducing unnecessary resources, and that employees had an effective knowledge management system for all entries and expenditures. The results of the straightforward linear regression showed that the null hypothesis, which stated that the mobilization of resources did not substantially impact the implementation of road construction project, should be rejected.

This finding agreed with findings by Nyabera (2015) found out that through proper accountability and transparency in resource mobilization development projects will meet its intended objectives and that stakeholder engagement in projects leads to projects that are demand driven and thus meeting the intended outcomes. The study recommended projects to train the project team members on matters dealing with stakeholder analysis and stakeholder participation. Temba (2015) performed a case study on a Tanga community program for disabled kids and assessed how stakeholders became involved in a donor-funded initiative. The study reported that stakeholder participation should be initiated from the beginning of the project in order to promote sustainability of donor funded projects

4.10.2 Decision Making and Implementation Road Construction of Projects

According to the study's findings, which were consistent with the study's fundamental hypotheses, the vast majority of respondents had agreed with the controversial remark. The survey received an average score of 3.79, which indicated that this was the case. M&E makes certain that goods are of a high quality and that project is completed on time. Additionally, M&E is an essential instrument in the successful completion of projects, with an average score of 3.77. Monitoring gives staff members and supervisors the ability to guarantee that projects operate as planned right from the beginning, resulting in an average score of 3.72. Respondents, on the whole, indicated, with an average composite score of 3.70, that they felt decision making had

only a moderate impact on the carrying out of road building projects. The findings of the easy linear regression demonstrated that the null hypothesis, which said that decision making did not significantly influence the outcome of the road building project, was not valid.

Since an implementation approach to project management helps project managers set up and manage project implementation stages, these findings support Akali and Sakaja, (2018)'s findings that most projects fail because of the decision-making strategy used to implement the project, since an implementation approach in project management provides a framework customized to assist project managers in setting up and managing project implementation stages. Evan's research demonstrates that both the stakeholder participation tactics and the resources required to carry out the activities of the project have a substantial influence on the overall execution of the project (2015). Mirza and Ehsan (2016) indicated that implementation plan, resource allocation and stakeholder participation influences implementation showing that execution can only be done if it is planned and resources are provided. According to the conclusions that were presented in Atibu's (2015) study, when incorporated as a component of a formal decision-making process, stakeholder engagement evolves into a bureaucratic procedure and, as a result, a variety of negatives are brought into play.

4.10.3 Communication Framework and Implementation Road Construction of Projects

According to the findings of the research, the communication framework has a composite average effect level of 3.46 on the implementation of road construction project. The results of the survey, which were backed by the study's main statement, indicated that the majority of the workers had a score of 4.03 on average, and they agreed that technical experts are essential in capacity development since it promotes interaction and project management. It was also supported by the statement that there project managers need the necessary technical expertise in project management with a average of 3.85. The fact that it was discovered that the communication framework does not substantially impact the implementation of road construction project led to the rejection of the null hypothesis.

This finding agreed with findings by Lee-Kelley & Sankey (2016) reported that a time-sharing and cultural differences affected group communication and relationships within the projects in their case study on Global virtual teams and project success and recommended that projects should develop a strategy to overcome the problems associated with distance cooperation.

Dziekonski (2017) reported in his study on factors affecting the quality of communication in project teams that communication planning is the most important task of project managers he established that although communication planning is a key activity of project managers, there are a few lessons in the evaluation of the communication process and its components.

4.10.4 Human Capital and Implementation Road Construction of Projects

The study found that human capital influences implementation road construction of projects moderately with a composite average of 3.74. That's based on the study's primary findings, which said an average of 4.36 % of respondents believed that technical talents are brought in outside to help a road project, and 4.25 % of employees have the necessary road construction management abilities. Human capital influence on project success focus should be laid on factors affecting project success and the project manager's knowledge should be enhanced on the effect of these factors. Human capital was shown to have a substantial effect on the execution of road building projects, contrary to the null hypothesis revealed by the simple linear regression.

This conclusion is in accordance with what Walubengo (2019) discovered after doing study in Bungoma county, Kenya, on the applicability of project design tools, human resources, and the effectiveness of community-based initiatives. Walubengo examined many approaches to project design in the course of his research. These approaches included strategic analysis, shared reality, issue tree analyzation, and Pert chart. He discovered that the association between projects development tools and the actual execution of community projects was dependent on management abilities. As a result of this discovery, he proposed that project designers place an emphasis on the development of managerial skills. Onyango (2017) human capital data is important in planning strategically for regional development projects, the study recommends that the human capital be organized through a participatory process at the beginning of the project. The study focused on county government projects and failed to address implementation road construction of projects a gap that this study aims to fill.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter sums up the results, examines the study's contributions to existing knowledge, and provides some suggestions. Each research aim is summarized in this part, along with a brief explanation of why the results are relevant. Findings are reviewed and conclusions and suggestions customized to satisfy the investigation's unique objectives are drawn up. Presented the conclusions of the inquiry, which added to the knowledge base. In conclusion, the chapter discusses some suggestions that were obtained from the results, developing policy challenges, and discovered gaps in knowledge. It is advised that additional study be done on these topics.

5.2 Summary of Findings

The research used a sample size of one hundred people, of whom fifty-three questionnaires were returned after being properly filled out, resulting in a return rate of fifty-three %. According to the findings of the research, the proportion of males to females was practically same. According to the findings of this study, the age of participants in road construction project in Kenya has a significant impact on the outcomes of such projects. The vast majority of those who took the survey were in the age range of 31 to 40. Fewer than 10% of respondents had diplomas, but the majority of those polled had a college education.

The primary objective of the research was to examine how resource mobilization affected the outcome of a road building project in Kiambu. The study found that resource mobilization had a moderate impact on the success of a road building project in Kiambu, with an average score of 3.70. A substantial correlation was found between project implementation and resource mobilization ($r^2 = 0.506$) according to the study's results. Statistical significance was discovered between the number of resources mobilized and the implementation of road development projects ($t=23.511$, $p < 0.05$). According to the counterargument, there is less evidence that resource mobilization has a substantial role in the actualization of road building projects.

The second aim of the research that was conducted for this study was to determine whether or not decision-making has an effect on how well road construction project turn out. According to

the findings of the research, decision making has a modest impact on the implementation of road construction project, yielding a composite average score of 3.70. Research shows a strong correlation ($r^2 = 0.358$) between project decision-making and project implementation when it comes to road construction. $t=14.906$, $p<0.05$) indicated a statistically significant link between the volume of decision-making and the efficiency of road construction projects. In contrast to the null hypothesis, decision-making processes have substantial effects on highway building initiatives.

Thirdly, this study aimed to learn how the communication structure affected the road construction project execution. According to the findings of the research, the communication framework has a composite average effect of 3.46 on the implementation of road building project. Road construction projects fare better when its communication frameworks are in place, according to the study's results ($r^2 = 0.572$). Road construction projects were shown to have a statistically significant link with communication framework ($t=23.041$, $p<0.05$) No significant impact on road construction project implementation was found by rejecting the null hypothesis that the communication framework had no impact.

The implementation of road construction project was the focus of this study's fourth research goal, which aimed to determine the impact that human capital has on how well road construction projects turn out. According to the findings of the research, the effect of human capital on the implementation of road construction project has a composite average of 3.74. According to the findings of the study, a positive linear connection exists between human capital and the implementation of road construction project ($r^2 = 0.626$). There was a statistically significant relationship found between the degree of human capital and the implementation of road construction project ($t=15.917$, $p<0.05$). It can no longer be assumed that human capital does not play a substantial role in determining how well road construction project turn out.

There is a significant correlation between the total number of the factors that determine stakeholder engagement and the success of road construction project in Kenya. It was shown that R Square was responsible for 73.2 % of the difference in implementation that is induced by the combined drivers of stakeholder engagement in road construction project. Conversely, it was discovered that the combined determinants of stakeholder's engagement do predict execution of

road building projects, thereby rejecting the null hypothesis. This evidence suggests that the alternative hypothesis is correct.

5.3 Conclusion

Several inferences and conclusions may be drawn from the preceding discussion:

According to the findings of the research, resource mobilization has an effect on the implementation of road construction project in Kiambu. This was ascribed to the experience of the project manager, which was vital in eliminating unnecessary resources and ensuring that employees had a reliable knowledge management system for all entries and expenditures. It was discovered that there is a good association between the Implementation of road construction project in Kiambu and the resource mobilization that takes place there. The alternative hypothesis, which stated that resource mobilization did not substantially impact the implementation of road construction project, was shown to be false and hence discarded.

The making of decisions has an effect on the execution of road construction project. This was ascribed to the fact that M&E guarantees that goods are of high quality and projects are completed on time, that M&E is a vital instrument in the completion of projects, and that monitoring allow staffs and managers to ensure that projects operate as predicted. Making judgments and completing road construction projects go hand in hand, as has been found out. Decision-making had no significant influence on the success of road construction projects, contrary to what was hypothesized.

Communication framework influences Implementation of road construction projects. This was attributed by technical expert is vital in capacity building because it facilitates interaction and project management. It was also supported by the statement that the project managers need the necessary technical expertise in project. The effectiveness of road construction projects was shown to be positively correlated with the communication framework used in such projects. It was determined that the communication framework does have a major impact on the implementation of road construction project, hence the null hypothesis was refuted.

Human capital influences implementation of road construction projects. This was attributed by technical skills is externally sourced to support the road project and the staff possess the required road construction management skills. Human capital influence on project success focus should

be laid on factors affecting project success and the project manager's knowledge should be enhanced on the effect of these factors. It was determined that there was a favorable association between the implementation of road construction project and human capital. It was determined that the absence of a substantial relationship between human capital and the implementation of road construction project was a false null hypothesis.

To summarize, there found a positive and substantial correlation between the effectiveness of road construction projects and each of these components of stakeholder participation. 73.2 % of the difference in the success of road construction projects may be attributed to stakeholder participation. In addition, the hypothesis that the combined determinants of stakeholder engagement do not predict the success of road construction project is consequently rejected.

5.4 Contribution of the Study to Knowledge in management

The ideas that supported this research have been shown to be correct as a result of the outcomes of this investigation. Involvement of stakeholders was shown to be more important for a successful road building project, according to the study's findings. Specific theories and concepts used in this investigation were stakeholder theory, project management theory, and the triangle project concept. According to many theories, stakeholders consider learning to be an essential component of the Implementation of road construction project (Bowen & Martens, 2006; Forss et al., 2002). As a result, the findings of this research have shown that the participation of stakeholders is very crucial to the achievement of desired results in road construction project. The research presented before is easily transferable to other counties in Kenya.

The success of road building projects was examined to see how much of an effect resource mobilization, decision making, the communication framework, and human capital had. Human capital's impact on the final quality of road building projects was also examined. The reviewed literature revealed almost no data on separate and combined relationships, much alone comparisons based on these. These studies' findings, especially those involving comparisons, added significantly to the existing body of knowledge.

5.5 Recommendations

There are a few suggestions that might be made in light of the objectives and outcomes of this study;

5.5.1 Recommendations for Policy and Practice

- 1 The national and county government of Kiambu should come up with sound policies that govern the implementation of road construction projects and invest in stakeholders to ensure that the funds invested in the road construction projects.
- 2 Projects implementers should ensure that the stakeholders are facilitated to participate in the decision making of projects during the implementation phase. In essence, they should be trained in keeping records of their project activities by collecting data, participating in data presentation and analysis. This could be achieved by allowing user friendly methods of data collection so as allow all stakeholders to participate.
- 3 Before any road project is implemented, all the stakeholders should be sensitized on the importance of the project and be actively involved in setting the objectives, vision and mission to ensure better implementation of road construction projects.
- 4 There should be change of attitude among the stakeholders and the society at large not view road projects as avenues of making money but as way of improving the life of the citizens.
- 5 All the stakeholders in the road projects should endeavor to work collaboratively and embrace the road construction projects as investments average to meet their needs and those of future generations.
- 6 Ensure there is an adequate representation of gender balance in projects in order to minimize conflicts that may arise and also reasonable decisions being made.
- 7 Ensure there is adequate financial resources, transparency and accountability in project management for the implementation of road construction projects.

5.5.2 Recommendations for Further Research

This study was done on the assess stakeholder participation on implementation of road construction projects in Kenya. A case study of class c of Githurai-Kimbo road project in

Kiambu county. A replica of this research ought to be done in other projects such as water, and among others in Kenya with the view of establishing the assess of stakeholder participation on Implementation of road construction projects.

It is imperative that studies of a similar kind be carried out in other constituencies in Kenya so that a comparison of the results can be made, and so that empirical information can be gathered that can be used to enhance the efficiency of road development projects.

In the study, only primary data was analyzed, although secondary sources of data may also be used to conduct research as an alternate method. This might then either validate or invalidate the conclusions of the existing research. This study made use of multiple linear regression and correlation analysis; further research may add other techniques of analysis such as component analysis, cluster analysis, and discriminant analysis.

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APPENDICES

Appendix I: Introduction Letter

Bethuel Fayisa Balate,
P.O BOX 25010, 00100
Nairobi

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: REQUEST FOR PARTICIPATION IN A RESEARCH STUDY

I am a student at the University of Nairobi School of Open and Distance Learning, where I am pursuing a Master of Arts degree in Project Planning and Management. My current research focuses on determining how the level of engagement from various stakeholders affects the success of road development projects in Kenya. An incident that took place in Kiambu County, Kenya. In order to graduate from this course, this is a necessary condition. The research results will help increase participation from key players in the building industry. The questionnaire included is thus designed to search for your opinions on different success criteria and their impact on building projects. Please complete it with full honesty and sincerity. The information you give is used for academic reasons only and is handled with greatest secrecy.

Bethuel Fayisa Balate,
Student (Masters) – L50/33172/2019
University of Nairobi
Nairobi.

Appendix II: Research Questionnaire forfor the Staff of KURA, Githurai –Kimbos Consultant and Contractor

I am writing to ask for your assistance in conducting this interview, as doing so is a necessity for me to finish my project. I have a healthy amount of respect for both your yes and no answerers. The confidentiality of your replies will be maintained at all times.

PART A: BACKGROUND INFORMATION

1. Gender: Male () Female ()

2. Age: 20- 29 () 30– 39 () 40 – 49 () 50 and above ()

3. Highest education level:

Certificate (), Diploma (), Undergraduate (), Postgraduate (), Other ().

SECTION B: Resource Mobilization

How much do you agree or disagree with the following characteristics of resource mobilization?

Using a scale, you may express the following extent: 1 designating none, 2 designating small, 3 designating modest, 4 designating great, and 5 designating very great.

Statements	1	2	3	4	5
All Project procedures are captured in every fiscal budget of the group budget depends on available government financial solutions					
The project manager's expertise was essential in removing unused resources.					
The project was completed within budget, if not under.					
Workers have a robust Knowledge management system for all entries and expenditures					
Some activities were made cheaper as part of the initiative, but the quality was unaffected.					
In accordance with the company's general requirements, the Project was granted					

SECTION C: Decision Making

How much do you agree or disagree with the following characteristics of decision making?
 Using a scale, you may express the following extent: 1 designating none, 2 designating small, 3 designating modest, 4 designating great, and 5 designating very great.

Statements	1	2	3	4	5
M&E makes certain that the items it produces are of the highest standard and that projects are completed on schedule.					
Projects completed by the Kenya Electricity Transmission Company Limited rely heavily on M&E.					
Monitoring enable staffs and managers to ensure that projects run as anticipated right from start					
There is notable link between M&E practices and completion of Kenya pipeline company projects					
The majority of members of the management team have extensive experience in the monitoring and evaluation of projects.					
M&E guarantees that the final products are of superior quality and that all projects are completed on schedule.					

SECTION D: Communication Framework

How much do you agree or disagree with the following characteristics of communication framework? Using a scale, you may express the following extent: 1 designating none, 2 designating small, 3 designating modest, 4 designating great, and 5 designating very great.

Statements	1	2	3	4	5
Technical expert is vital in capacity building because it facilitates interaction and project management					
For Kenya road business projects to be completed, highly skilled workers and a sufficient budget are essential.					
Project managers need the necessary technical expertise in project management					
Most project managers are equipped with the right technical skills linked to project completion					
A mind map is used by the project manager to organize goals and deadlines.					
The project managers are trained on the technical skills required for the job.					

SECTION E Human Capital

How much do you agree or disagree with the following characteristics of human capital? Using a scale, you may express the following extent: 1 designating none, 2 designating small, 3 designating modest, 4 designating great, and 5 designating very great.

Statements	1	2	3	4	5
Technical skills is externally sourced to support the road project					

The staff embrace technical capacity building					
The staff possess the required road construction management skills					
The staff have good level of education					
The staff members have shown a strong desire to advance their educational standing.					
The staff are trained on M&E practices					

SECTION F: Implementation of Road Construction of Projects

How much do you agree or disagree with the following characteristics of road construction's Implementation projects? Using a scale, you may express the following extent: 1 designating none, 2 designating small, 3 designating modest, 4 designating great, and 5 designating very great.

Statements	1	2	3	4	5
The road was constructed using practical drainage systems in order to provide the best possible Implementation over the long term.					
The expenditures incurred by drivers have decreased dramatically as a direct result of improved road construction.					
Congestion has significantly reduced					

During periods of intense precipitation, the roadway does not get flooded (rainy season)					
Due to improvements in road construction, there have been fewer instances of vehicles breaking down while driving.					
Pedestrians' walkways adequately provided					

Thank you for your co-operation

Appendix III: Interview Guide for KURAs project manager, Githurai –Kimbo Contractors Team Leader and Consultant’s Deputy Project Manager

1. Please specify your gender ?

.....

2. Kindly indicate the highest level of Education

.....

3. Please provide information on the number of years you have been employed by the Kiambu County Government?

.....

4. How does decision making influence the Implementation of road construction projects in Kiambu? Kindly explain

.....

5. What challenges are faced in resource mobilization?

.....

6. How does resource mobilization influence the Implementation of road construction projects in Kiambu? Kindly explain

.....

7. Where do the difficulties lie when it comes to making decisions among project managers?

.....

8. How does communication influence the Implementation of road construction projects in Kiambu? Kindly explain

.....

9. How does human capital communication influence the Implementation of road construction projects in Kiambu? Kindly explain

.....

10. What challenges are faced in our recruiting casuals for the road construction project?

.....

Appendix IV: University Authorization Letter



UNIVERSITY OF NAIROBI
FACULTY OF BUSINESS AND MANAGEMENT SCIENCES
OFFICE OF THE DEAN

Telegrams: "Varsity",
Telephone: 020 491 0000
VOIP: 9007/9008
Mobile: 254-724-200311

P.O. Box 30197-00100, G.P.O.
Nairobi, Kenya
Email: fob-graduatestudents@uonbi.ac.ke
Website: business.uonbi.ac.ke

Our Ref: **L50/33172/2019**

May 17, 2022

National Commission for Science, Technology and Innovation
NACOSTI Headquarters
Upper Kabete, Off Waiyaki Way
P. O. Box 30623- 00100
NAIROBI

RE: INTRODUCTION LETTER: BETHUEL FAYISA BALATE

The above named is a registered Master of Project Planning and Management Student at the Faculty of Business and Management Sciences, University of Nairobi. He is conducting research on "*Stakeholder Participation on Performance of Road Construction Projects in Kenya, A Case of Class C Road Githurai Kimbo Road Project in Kiambu County*"

The purpose of this letter is to kindly request you to assist and facilitate the student with necessary data which forms an integral part of the Project.


The information and data required is needed for academic purposes only and will be treated in **Strict-Confidence**.

Your co-operation will be highly appreciated.


PHILIP MUKOLA (MR)
FOR: ASSOCIATE DEAN,
FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

PM/mi


Appendix V: NACOSTI Permit



REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation


Ref No: 450705



**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Date of Issue: 04/07/2023

RESEARCH LICENSE




**This is to Certify that Mr.: BETHUEL Feyisa BALATE of University of Nairobi, has been licensed to conduct research in
Kiambu on the topic: STAKEHOLDER PARTICIPATION ON PERFORMANCE OF ROAD CONSTRUCTION OF ROAD CONSTRUCTION PROJECTS IN
KENYA. A CASE OF CLASS C ROAD GITHURAL-KIMBO ROAD PROJECT IN KIAMBU COUNTY for the period ending :
04/07/2023.**

License No: NACOSTI/P/22/18609

Director General

**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION**

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Appendix VI: Map of Kiambu County

